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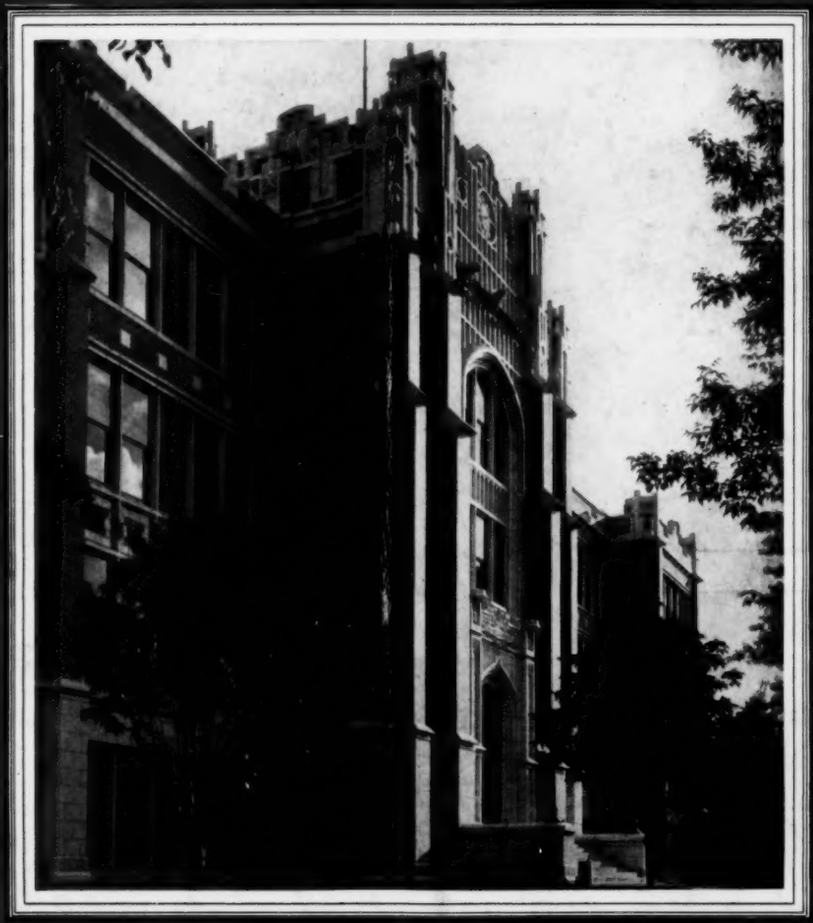
DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS



JULY

1928

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STATE EDUCATION DEPARTMENT

√R v.2 July-Dec. 1928

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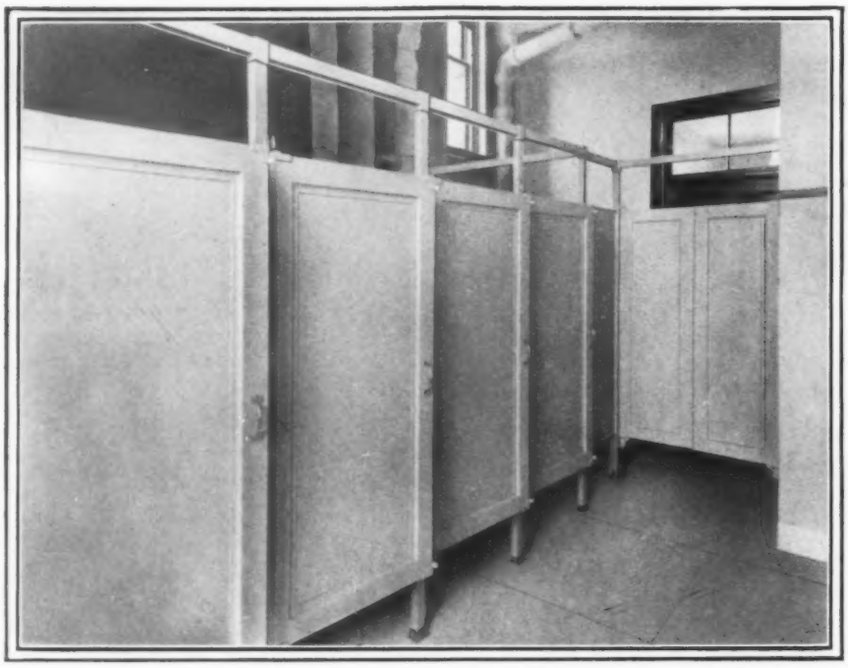

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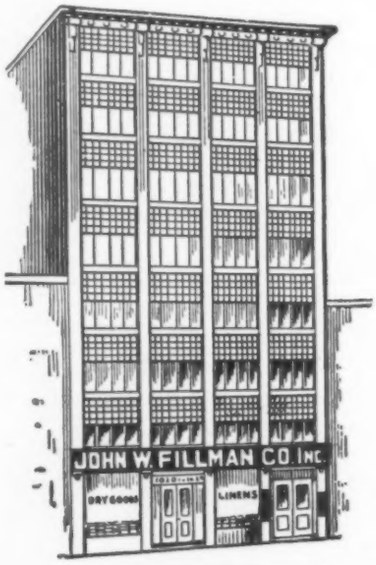

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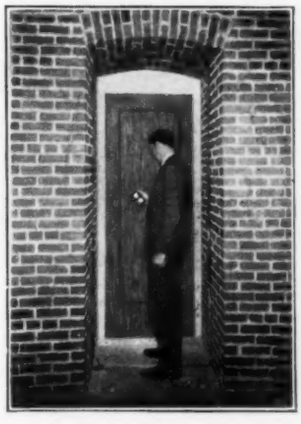
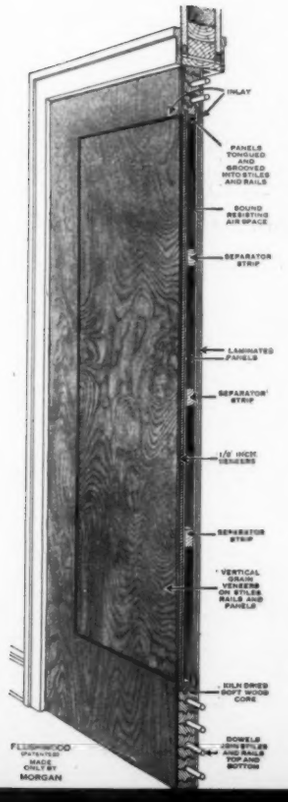


(A) Photo showing test of Flushwood Door sound resistance by Doctor Paul E. Sabine in sound chamber of Riverbank Laboratories, Geneva. Organ is operated by observer seated in wood cabinet. (This prevents absorption of sound by observer's clothing.) The time during which the sound remains audible is a measure of the intensity of sound in the sound chamber. (See "B" to right.)

(B) Observer with stop watch chronometer, noting the time the sound from the sound chamber remains audible on the further side of the Flushwood door. The difference in the duration of audible sound with the observer—first in the sound chamber and then on the further side of the Flushwood door is a measure of the factor by which the sound intensity is reduced by the Flushwood Door.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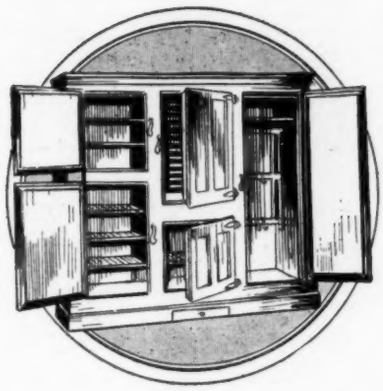

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FOR LESS NOISE—BETTER HEARING

With the Publisher

RESEARCH WAS THE KEYNOTE of the meeting of the business officials of public-school systems held in Denver, it was the dominant note at the Minneapolis convention of the N. E. A., and it was stressed at every turn at the Catholic school meeting held in Chicago. Educators everywhere are realizing the importance of accurate information, of thorough study and convictions based upon knowledge.

While there is nothing particularly new in the use of research to ascertain facts, yet in the past it has been avoided, sidestepped, if you please, because the very word was terrifying to many and bespoke great effort on the part of someone in the digging-out of facts and figures. But today it is recognized that it is necessary to do work to get results and that by obtaining accurate knowledge of the subject in hand, mistakes are lessened and projects are made surer before they are launched. Research is the educator's insurance of better education and the administrator's safeguard against inefficiency.

All of the foregoing brings to mind the prebirth days of The NATION'S SCHOOLS and the final determination of making the magazine one devoted to the application of research to the building, equipment and administrations of schools, and it is with a great sense of gratification that we find ourselves devoting our time and effort in presenting to administrators of school systems the results of research into those problems that have been the heavy burden in years past.

* * *

Getting away from one's own bailiwick, stepping out into pastures new, and meeting other school administrators and comparing the every-day problems that confront us all are some of the benefits of attending a convention. It is indeed only the man with a narrow viewpoint who weighs the dollars and cents against the advantages of attending meetings. If the delegate attending the conventions never went near the meeting hall, if he never heard a formal discussion of a problem, the time he would spend in going to the meeting would still be well spent because he could not help but exchange some ideas with those whom he met in the hotel lobbies, at the exhibits, and on the trains.

* * *

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THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME II JULY, 1928 NUMBER 1

Research and the Public-School Business Department*

Research, both national and local in character, is of paramount importance and to gain successful results methods must be similar and study and application centralized

By GEORGE WILLARD FRASIER, President, Colorado State Teachers College

THE topic I am going to discuss is "Research and the Business Department of a Public-School System," although I hesitated accepting such an assignment. My work for the last six years has been confined entirely to college administration. At one time I worked in the public-school field and was thoroughly conversant with the business and finance departments of such systems. However, when one leaves such a field and enters another, it is very easy to lose touch. I say this not by way of apologizing for what I am about to present, but to explain that I am working out of my present field, and for this reason cannot be as thoroughly aware as I might be were I still doing city school research. However, there are many things in common between the business side of college administration and the business side of city school administration that will form a basis for what I have to say.

All Research Has Direct Bearing

My first supposition is that all research carried forth in education has a direct bearing on the business department. One would think that the curriculum research would have little influence on the business systems; however, the influence is marked and very direct. When a school system sets forth to revise its curriculum, it challenges each part of the work being done at that time, and seeks, through careful study and investigation, to build up a new course of study that will be more adequate and in accord with modern educational philosophy. When this new course is completed, it calls for new subjects and new ways of teaching old subjects, with the consequent result that the business department is called upon to handle a different type of supplies.

Methods of Handling

For example, we may take the subject of geography. If a public-school system works out an old line course in geography, it means that the business department will buy maps, globes, and various other pieces of apparatus with which to teach this subject. In another school system this subject may be so worked out as to emphasize mostly the visual side of teaching. If this is true, then the business department must interest itself in slides, stereopticon views, and moving picture machines, which brings in the endless questions of booths, and wiring devices, all of which call for careful study and research.

Another school may consider geography as one of the social sciences, and teach it not as a separate subject, but as a part of this group. This method of teaching may call for buying certain pamphlets, library references, and other materials of that kind. It seems evident that no matter

*Paper delivered at the nineteenth annual meeting of the National Association of Public-School Business Officials, Denver, June 5, 1928.

what the educational administration of a school system may put in the curriculum, there is an immediate demand on the business department for new supplies, and this means study in a new field.

Aside from the curriculum, there are other pieces of educational research that affect the business department. For example, the studies that are being made now on the size of classes. Should we have small classes and use individual equipment, or should we have very large classes and use group equipment? Should the school be organized on the platoon basis where the special subjects will need only one set of special equipment, and this be kept in a special room? Or should it follow the ordinary type of organization where there must be material for such subjects in every room? Take the subject of art, for example. In the platoon organization the material is concentrated in the art room. In other plans of organization, art materials are to be found in all rooms. If the school uses the plan of "individual instruction" another study of supplies must be made.

Effects of Teaching Methods

Teaching methods also reflect on supplies. Even the small subject of examinations has an important part, for the business office must furnish the mimeograph material a teacher is to use for examinations, the standardized tests, or other necessary material.

At the present time there are many important research problems being studied in the various colleges of education, problems such as class size, class organization, individual instruction, what to teach, how to teach, how to present different types of subject-matter, how children learn, and endless other studies that are bringing new information to the school systems every year. The modern school system uses the results of these studies. These reflect immediately upon the business department. It is not necessary for me to say more concerning the effect on the business department of general research.

Two Groups of Problems

I will turn now to specific research that has to do with the business department. These research problems should be considered in two different groups: First, those that demand national solution; and second, those that demand a local solution for your own school system. This organization should have a well rounded-out research department, or at least a research committee so that all business departments might participate in national research. At the same time each school system should do its own independent research.

I will illustrate the necessity for the two types of research by discussing the first problem I am suggesting for research. This is the problem of finance, particularly in the realm of accounting, bookkeeping, budget making, and in the making of reports. What is national problem of business officials of public-school systems? It is for a central agency or committee to agree on exactly how certain units shall be defined. A school system wishes to know what per cent of its budget is used for administration, and it also wishes to compare this per cent with the per cent spent in other cities. If this is to be done correctly, all school systems used in the comparison must agree exactly on what constitutes administration. This is not true at present.

Lack of Agreement

In looking over a group of budgets the other day, I discovered that the "telephone exchange" maintained by the city school system was charged to three different accounts by three different city systems. The national research committee of the Public-School Business Officials should determine exactly where all items should be charged so that when the percentage cost of administration or instruction is mentioned, all business officials will be talking about exactly the same thing.

The most important unit of cost is the "per pupil cost," and yet data published by public-school systems are not comparable. This means that there must be agreement on such standards as a pupil's age (a pupil born on a certain day may be ten years old in one city, eleven in another, and nine in another, according to the definition of age), whether cost per pupil is to be based on total number belonging, average number belonging, average daily attendance, or some other equally important unit.

Must Yield Comparable Conclusions

In other words, when an adequate system of accounting is put into a city school system, it must be known that in general it will yield the same type of information as that yielded by all other school systems. This shows at least one need for a national research group organized by this body. I have used bookkeeping as an illustration. However, the needed studies are equally important in all other fields. To follow my illustration through to its logical conclusion, I will now take up the local end of this same question. You are installing a new bookkeeping system. You will need to do much research in your local system before this is done.

A system of this kind must be built solely to

answer certain questions, questions asked by the United States government, the state, the county, the city, the superintendent of schools, the assistant superintendents, the public, the supervisors, the principals, the purchasing agents, the storekeeper, and everyone else on the administrative staff of the school system. The only purpose of an elaborate accounting system in the public schools is to answer questions. After you have listed all of your questions, a system should be devised that will answer them simply and adequately, and at the same time give the national information you wish for comparison with other school systems.

What are some other problems that demand both national and local research? The first and probably the most important is the purchase of supplies. In general, the business department is told what supplies the public-school system needs. This department must answer the questions how to buy, where to buy, how to get the correct quality, what quantity to buy, which materials can be bought ahead and which cannot, whether they should be bought in quantities for the storeroom or sent directly to the schoolroom, and a thousand other problems.

A Business Association of Colleges

We have these same problems in college administration. Two years ago, five of the state institutions of higher learning in Colorado formed a business association. The purchasing or business agents of these institutions meet together once a month. Much of the buying for the state colleges is now done in large quantities through this committee. We have discovered that we are now buying better quality for less money. Take paper, for example. We were using in our colleges two years ago, sixteen kinds of standard paper. Through a very careful study of all of these papers it was determined that five kinds of paper were sufficient for all of the uses in all of the institutions. The institutions then combined and bought in large quantities and saved approximately fifteen per cent on paper.

This was the result of careful research that lasted for more than a year on the qualities of paper. This same careful type of research has been done in many other fields with the result that quality is being stressed and articles are being purchased in quantities.

Another very important phase of the buying of supplies that should be the subject of research is the careful testing of supplies. For example, a public-school purchasing department buys large quantities of toilet paper. You cannot judge it entirely on the quoted prices of various firms. A sample should be submitted to the purchasing agent and taken to a research laboratory for testing as to texture and solubility of the paper before buying. The paper should also be tested after delivery. This is also true of paper towels and many other supplies. In buying such things as brooms and brushes, the same careful research should be made concerning the material in these submitted samples, and in the materials that are delivered after they are bought.

Importance of Careful Buying

In buying soaps not only must you decide by careful research whether to use a bar, a powder, or a liquid soap, but when you have determined this you must study the chemical analysis and constitution of the materials before being sure that you are doing your work well. Probably the most important piece of work done in the business office is the buying of supplies, and it is one that should have very careful research.

Another example of a question that needs research is the heating problem. There may be national research on the heating problem, but probably local research is more necessary on this subject than on any other. You must, by careful scientific study, decide which is cheaper for your city, coal or natural gas, if it is available. If you have decided that coal is cheaper than gas, then you must determine by a scientific study of production of various mines which produces the coal that is most economical to burn. This study will involve at least B.T.U., ash content, moisture content, and the quantity of carbon.

A Study of Heating Equipment

This problem will demand much research because it will involve also the study of heating equipment. You must know by scientific experiment the type of coal you are to use, whether you are to use a high or low pressure boiler system, whether you are to hand feed them or to use stokers, whether you are to buy the coal in large quantities and store it, or buy it in small quantities, if you are close to the mine. It will involve the very important research question as to whether you should buy on the tracks and do your own delivering or have it delivered in your bin. In a large city school system the heating problem is sufficient to keep one expert research engineer busy all the time.

Another problem that is quite largely local in character is the problem of insurance. For the schools in your city, should you carry your own insurance? How many buildings and how much investment should you have before you should do this? If you should decide to carry insurance

with commercial companies, what per cent of valuation should you carry? Who should determine this per cent? Where and how would you buy this insurance?

Another problem that is worthy of study is the janitorial service. Should you use men or women for this work? Should you use crude, low-salaried people or high-salaried people who are better trained. When should they do their work?

I do not claim to have exhausted the subject of research in public-school systems, but I have tried to point out some of the fields that demand both national and local research, and much may be accomplished by centralization of research effort and comparison of results.

Cafeteria Service in California, Ohio, and Pennsylvania

A recent questionnaire sent by The NATION'S SCHOOLS to city and county superintendents in Pennsylvania, Ohio, and California has revealed many interesting facts bearing on cafeteria service in these three states.

Of the 490 towns, cities, and counties reporting, 240, or 48.8 per cent, have cafeteria facilities, and 250, or 51.2 per cent, do not.

California ranks highest with seventy per cent facilities, Ohio next with sixty per cent, and Pennsylvania last with thirty per cent.

Divided by size of towns for the three states, thirty-nine per cent of less than 2,500 population report operation of cafeterias in some schools. In small cities, 2,500 to 10,000, thirty per cent facilities exist. Large cities over 10,000 have seventy per cent facilities, and counties sixty-eight per cent.

Equipped for Food Service

The excess found in the towns over the small cities is, no doubt, due to the consolidated schools, most of which are equipped for food service.

Using the mean figures of the three states for a general survey of the entire country, approximately 64,578 school cafeterias are in existence to-day, serving approximately eight million meals daily at an annual cost, including everything, of $250,000,000.

Another revealing fact is that of the 250 towns, cities, and counties in the three states reporting no cafeterias, 8.5 per cent serve lunches and hot dishes. Also, 5.5 per cent report cafeterias being installed or planned for in new buildings. Thus, about 11,500 schools in the United States not having cafeterias, serve lunches and hot dishes. Also, about 7,500 new cafeterias are being equipped or planned for school service.

Industrial Centers for Retarded Children

One of the chief problems in school administration has always been to make provision for those varying from the type. Studies in retardation and elimination have led us to consider more carefully the problem of adjustment in terms of a different type of education, rather than with respect to time involved in completing a uniform course. We no longer think of our work as satisfactory for retarded children when we provide for a very slow rate of progress and a minimum of accomplishment. What these children need is a kind of training which will render them productive members of society.

It is generally agreed that it is a better plan of organization for these children to be placed in special schools so organized and systematized that they may be provided with better grading, better opportunities to adapt equipment to the needs of the pupils, such as shop, playground, gymnasium, home making, cooking, and sewing. Such a plan of organization also gives the teacher an opportunity to teach the thing for which she is particularly trained and with a more homogeneous grouping is able to adapt the material to the ability of the individual pupil.

Center Established in Wyoming

Casper is the first city in the state of Wyoming to reorganize its classes for retarded children on this basis. Recently the school board of Casper voted to establish an Industrial Center to meet this need which not only exists in their school system but in every school system of equal size.

Provision will be made for cooking, sewing, industrial arts, manual training shop, music, and household economy, in addition to the academic subjects taught. The underlying philosophy of this change is to provide each child with an education suitable to his needs and ability.

Although the school lunch is coming to be recognized as a part of the regular school work, funds for equipment and other initial expense are not always provided by the board of education. Various means of securing these have been adopted. Entertainments and "showers" have been given, and the interest of local organizations is frequently gained. The parent-teacher association has made many a school lunch possible, and school lunch organizations have financed and organized this work in a number of cities, the aim, no doubt, being to demonstrate the educational value of the work and so have the board of education eventually assume the responsibility.

Needed Research in the Business Administration of Schools*

While there are an indefinite number of divisions into which research may be classified, Dr. Fowlkes suggests eight main headings for present consideration

By DR. JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

EDUCATIONAL administration, from a professional content standpoint, may be defined as that body of information pertaining to the organization, financing, staffing, operation, housing, equipping, and supplying of educational institutions. Obviously, either one of these fundamental divisions of educational administration may be greatly handicapped by any one or all of the others. Consequently, it seems beside the point to engage in any controversy over either the relative importance or the relative function of these basic divisions of the administration of public education.

It is an easy matter to build up an indefinite number of divisions into which research in this field may be discussed. For example, such proposed research might be classified in accordance with the major divisions of a school system, that is, elementary schools, junior high schools, and senior high schools. Again, such research might be classified around such divisions as supplies, equipment, etc. However, for the purpose of discussion, eight main headings are suggested around which energies might well be centered during the next decade.

The eight divisions previously referred to are as follows:

1. A study concerning the status of all school officials who are at present directly responsible for the business administration of public schools.
2. Administrative problems.
   a. Administrative organization.
   b. Problems in the selection and purchase of school supplies.
   c. Allotment of supplies.
      (1) Who shall allot?
         (a) Allotments to divisions.
         (b) Allotments to schools.
         (c) Allotments to pupils.
3. Curriculum analysis to determine needed types of equipment and supplies.
4. Quality cost, and allotment standards for school supplies.
5. Who shall furnish school supplies—school, pupils, or school and pupils jointly?
6. Inventory problems.
7. Budgeting of school supplies.
8. Architectural problems in school building and planning, with particular reference to storage and filing space.

Encompassing the Field

AT THE annual meeting of the National Association of Public-School Business Officials held recently in Denver, Dr. Fowlkes and Dr. Frasier addressed the members on the subject of research and the business departments of public schools. Since each paper was outlined and prepared with full knowledge of what the other contained they supplement each other, thoroughly treating the subject in question, albeit from different viewpoints.

Before entering into a discussion of the eight fields in which it seems research should be conducted it seems appropriate to point out the two major kinds of research that it is possible to make. The two kinds of study that can be made are (1) Status or Inventory Studies, and (2) Calibrating or Evaluating Studies.

The first of these two basic kinds of investigations is, as the name implies, a process of becoming intimately familiar with existing conditions in some chosen field. In other words, a status or inventory study is a "stock-taking" process. A study to determine the kinds and amounts of paper used in grades one to six serves as an excellent illustration of an inventory or status study. Ob-

*Paper delivered at the nineteenth annual meeting of the National Association of Public-School Business Officials, Denver, June 5, 1928.

viously, such a study would be an investigation of practice with no reference in and of itself to the desirability of such practice.

On the other hand, a calibrating or evaluating study immediately suggests an attempt to ascertain the relative value of two or more methods, articles, forms of organization, etc. A study to determine the relative value of two kinds of paper as measured by weight, sizing, durability, and any other chosen bases of measurement serves admirably as an example of an evaluating or calibrating study. In other words a status or inventory investigation is primarily concerned with the status quo of some selected field or category, while a calibrating study is primarily concerned with the "betterness" or "worseness" of two or more factors.

In recent years there has been much discussion concerning the "worth-while-ness" of inventory studies. Some competent people contend that status investigations are of little if any value. It seems that inventory investigations are certainly of little importance in and of themselves. However, it seems just as evident that the validity of any calibrating study can be assured only if it is preceded by or accompanied with a status investigation. Consequently, it seems apparent that any dispute over the desirability of making inventory investigations is futile and of no assistance. As will be noted in the following discussion, recommendations will include both status and calibrating studies.

Studies of Business Officials

The first problem suggested for study is an inventory investigation concerning the people who are at present engaged in the business administration of public education. It is of striking significance that, although exhaustive studies are available concerning the status of city school superintendents, supervisors of instruction, high-school principals, and elementary-school principals, no corresponding material is available concerning the people who are engaged in the business administration of our schools. Such a study would do much to portray the importance of this group of workers, and would also go far in professionalizing the work of the business administrators of local school systems. Such an investigation would involve no little co-operation on the part of all concerned, and would do much in knitting together the people who are responsible for the financing, housing, equipping, and supplying of classrooms.

The second division in which study is suggested is centered around a group of problems that may best be described as administrative problems. Such questions as the effect of administrative status of those engaged in business administration, the selection, contracting, purchase, and distribution of school supplies, the matter of allotting school supplies to grades, classrooms, or school divisions, and other similar problems should be attacked.

With regard to the first of these problems; namely, the influence of the administrative status of business managers, several studies already made furnish an excellent basis for exhaustive and comprehensive study of this matter. Outstanding among these studies, are *The Business Management of City School Systems* by Horace Taylor, Teachers College, Columbia University; and *Multiple Versus Unitary Control of City School Systems* by J. O. Marberry, University of Texas.

Curriculum Analysis to Determine Equipment

The third big division suggested; namely, curriculum analysis in order to determine special types of equipment and supplies, has been referred to by Dr. Frasier in the preceding paper. In addition to the suggestions made by him, may I further mention the crying need at present for much attention toward the matter of instructional equipment. Problems pertaining to the heating, ventilating, and lighting of school buildings as a whole have been rather adequately treated, but as yet it is impossible to say just what special equipment a mathematics, history, or Latin teacher should have. It should be remembered that equipment and supplies, after all, are only means of attaining the ends of the various divisions of a school system. Consequently, these special tools of instruction should be given most careful consideration by the business manager of such school systems.

More attention has been directed toward the matter of school supplies during the past five years than during any other period with which I am acquainted. Although much has been discovered concerning the cost and quality of school supplies, it seems that the surface has only been scratched.

Classification of School Supplies

School supplies may be classified under the headings: Administrative supplies; instructional supplies; and janitorial and engineering supplies. These headings in turn may be defined in a variety of ways in terms of the needs of the local school system. The first thing to be done in connection with the establishment of school-supply standards is to establish just what is meant by supplies under each of these three main headings. Parallel in importance with the need of defining

school supplies under these three divisions is some reliable information concerning: (1) Just what supplies are needed; and (2) the quantities and qualities of such supplies necessary for the realization of the educational objectives that have been established for the school systems involved.

Striking evidence of the absence of any reliable standards at present is at hand from a study recently completed under my direction with the co-operation of Professor Anderson of the Department of Education at the University of Wisconsin. In this study just completed, based on the practices in forty-five cities scattered throughout the country, it was found that the cost of janitorial and engineering supplies ranged from seventeen cents per child in average daily attendance per year to eleven cents per child in average daily attendance per year. These costs, of course, mean nothing until information is available concerning just what supplies were furnished by the schools.

Must Maintain Sanitary Conditions

It is a rather startling fact that the eleven cities in the lower quartile apparently kept the cost of supplies down by furnishing very meager amounts, if any, of such things as paper towels, toilet paper, soap, disinfectant, and furniture polish. Using some eighteen articles as a minimum list for the janitorial and engineering supplies, it seems that an expenditure of at least fifty cents per child in average daily attendance per year is necessary to maintain sanitary conditions that will thoroughly satisfy modern living standards.

The wide range in the cost of instructional supplies is a story of long standing but when one realizes that these same forty-five communities reported expenditures from forty-four cents per child in average daily attendance per year, to an expenditure of five dollars and forty-four cents per child in average daily attendance per year, one is convinced that even after making allowances for differences in accounting procedures, these communities are not assuming the cost of instructional supplies on bases by any means equal. In terms of instructional lists furnished in great detail, and apparently based on at least two or three years' comparative study, a minimum amount of three dollars and twenty cents per pupil in average daily attendance per year should be allowed for instructional supplies.

In the purchase of school supplies, much money has been wasted because advantage has not been taken of the seasonal variation of school-supply prices by consulting a school-supply index for janitorial supplies. Such an index has just been developed by Dr. Harold Clark of Columbia and myself, and will appear in forthcoming numbers of The NATION'S SCHOOLS. By consulting such an index, it is possible to save from five to thirty per cent of the cost of standard school supplies. Indexes similar to the one mentioned here are needed with respect to all phases of school supplies.

Who Shall Purchase Instructional Supplies?

One question that arises most frequently in connection with instructional supplies is whether such supplies shall be purchased by the pupils or furnished by the school. Inasmuch as the ultimate expense of instructional supplies is borne by the constituency of the school system anyway, the comparative cost under these two plans is interesting.

On the basis of some twenty items of instructional supplies that may be considered necessary for the seventh grade, the cost per pupil in average daily attendance per year is two dollars and twenty-eight cents when furnished by the school. These same supplies, when bought by individual pupils in small quantities at retail prices, cost four dollars and sixty-seven cents. Similar figures for the other grades indicate that instructional supplies cost approximately twice as much when bought by individual pupils rather than when furnished by the school. When such is the case, it would seem clear that even if a school district thinks it cannot afford to pay for instructional supplies, at least such instructional supplies might be sold on a cost basis in order that the parents of the community might enjoy the saving that would otherwise go to local supply dealers as profit.

Research in School Accounting

At the meeting of the National Association of Public-School Business Officials in Kansas City in 1925, I presented a paper in which the problem of school accounting was classified under the following headings: (1) Property accounting; (2) personnel accounting; and (3) financial accounting. This organization has done and is doing much toward the matter of financial accounting. Individual members of the Association have made marked contributions in the field of property accounting, but as yet there is no uniformity in the matter of keeping school inventories and consequently school-supply inventories. Only insofar as accumulative inventories of school supplies are kept, indicating consumption dates, will it be possible to develop quantity and allotment standards previously referred to. For example, unless records are kept in such a way as to show

how long a pencil will last in the third, sixth, or seventh grade, will it be possible to establish reliable standards for pencils in these respective grades.

If the work done in communities such as Allentown, Denver, Detroit, Grand Rapids, Cleveland, Kansas City, Los Angeles, New Orleans, Oakland, Rochester, and Minneapolis, could be united, a working basis would soon be available for the construction of a satisfactory inventory and accounting system. Dr. Frasier has indicated, from another point of view, the need for much emphasis on this problem of bookkeeping with relation to the business management of a school system. My expression cannot be too strong in endorsing what he has said in suggesting definite steps toward the formulation of a standard inventory system. Such a system, to be sure, must contain necessary flexibility for adapting it to the peculiar needs of individual communities, but a few minimum requisites should be adopted and employed by all public-school systems at the present time.

Sound and Complete Record System

With respect to the budgeting of school supplies, it is obvious that the crux of any real budget lies in a sound and complete record system. A school budget may be technically defined as a financial plan for a school system covering a definite period of time, usually one or two years, indicating amounts and sources of anticipated revenues and amounts and objects of proposed expenditures. But a school budget might be informally defined as the fiscal interpretation of a school's activities.

If a school budget is to reflect the activities of a school system, records must be available that have been established around the activities of such a school.

Architectural Research

For some time leaders in the field of school architecture have given scrutinizing attention to such matters as classrooms, libraries, gymnasiums, cafeterias, etc. But little attention has been paid to the needs of the business division of the public-school system. Consequently, much study is needed concerning the needs of the business division of a local school system. Adequate storage facilities for school supplies, and necessary filing divisions should receive as careful consideration in the development of a school building program as any other division of the school system. Only on the basis of such investigation will desirable development in this field be made.

Curricula for Different Levels of Ability

"Differentiation of material cannot be done intelligently unless we have clearly in mind the basis on which grouping of children has been done. At the present time all are satisfied that the IQ alone is not adequate for this purpose, for it does not measure certain qualities in pupils that make for success with school work. Therefore, schools are taking into account previous accomplishment of pupils and opinions of former teachers.

Wisdom of Small Groups

"Experience has demonstrated the wisdom of a small number of homogeneous groups even in a large school in preference to a large number. Three groups are to be preferred to more and in a small school two groups are enough with which to secure desirable results. The principal reason for the smaller number of groups is that it is difficult to provide differentiated content on many levels in the same subject. In fact, it is often difficult to provide even three clear-cut levels of material. Principal and teachers must be convinced of the value of the procedure and must be willing to put adequate effort into the work necessary for its successful culmination.

Differences of Bright and Dull Children

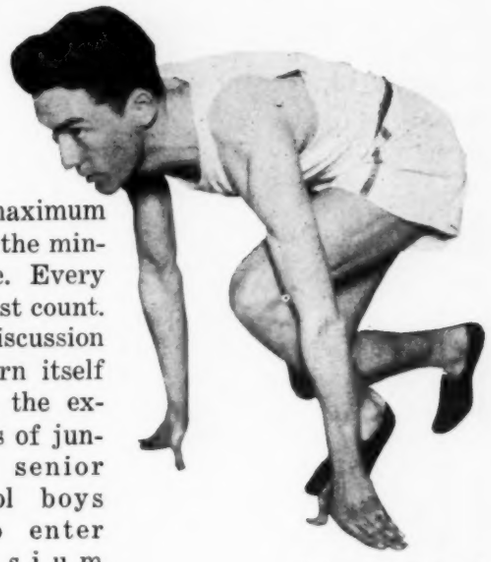
"Results will not just happen. It is fundamental that teachers must recognize the essential differences between bright and dull children. They must understand, that dull pupils must be confronted only with short units of work, and that as far as possible such pupils must deal with concrete materials. The more complex mental activities must be eliminated from their work, and they must be given much repetition. On the other hand, bright children must not be cramped with many short bits of work. Rote and repetition are both unnecessary and deadly for the bright child.

"Consequently, teachers must decide upon the minimum amount that each child should know if he is to receive a grade in the particular course under consideration. This minimum can be enriched somewhat for the average group and extensively for the best group in a way that will challenge the best effort of each group without bringing discouragement. To carry out such a program requires a sufficiency of instructional aids in the way of library facilities and visual material, as well as constant exercise of ingenuity on the part of the teacher."—*Arthur Gould, assistant superintendent of schools, Los Angeles.*

A New Group Technique in School Physical Examinations

Utilizing this development a physician may examine pupils more rapidly and easily determine those having dangerous physical defects

By MILES J. BREUER, M.D., F.A.C.P., Lincoln, Nebr.



Underwood & Underwood.

I HAVE been called upon to examine large groups of boys with a limited time in which to make the examinations. A technique has been developed to secure speed in these examinations without the sacrifice of actual value. Without increasing the rapidity of any essential proceedure, but merely by eliminating unessentials and arranging the work systematically, it has been possible to examine as many as thirty boys per hour with the same accuracy, thoroughness, and sound judgment that is given to an individual examination. Before such special organization and training were developed, the boys could be handled for the same type of examination at the rate of only six to ten per hour.

The problems leading to this question have arisen chiefly in the Lincoln Public Schools, although the technique has also been applied in the examination of Y. M. C. A. and Boy Scout groups. The school medical staff contains only one full-time physician. With 15,000 pupils in the schools, much of his time has to be spent in executive and administrative work, and a good deal of the actual medical work is done by part-time assistants who are paid by the hour.

Economize on Part-Time Physicians

There are two reasons for which it is desirable to economize on the time of these part-time men. From the standpoint of the board of education, funds for medical work are limited, and the desire is to accomplish as much as possible for a given dollar appropriated to school health work. From the standpoint of the examiner, the situation is this: The director of physical education has seen fit to select for this purpose men who have the background of skill and experience that is demanded by the importance of the work. These men are already successful in private practice; they are not doing the work for the modest pay that they receive for it, but as an altruistic public service. As they are busy men, their time must be conserved. They also are anxious to give the maximum service in the minimum time. Every second must count.

This discussion will concern itself only with the examinations of junior and senior high-school boys ready to enter gymnasium classes. There are between five and seven hundred each year. The purposes of the examination are as follows:

1. To exclude from gymnasium work those who are not physically fit for heavy exertion. There are two classes of these: First, those who have such defects as to put them in danger of some accident; for instance, a heart lesion with danger of collapse in the swimming-pool or during a race or a basket-ball game. The board of education is anxious to keep its record clear of such occurrences. Second, those whose condition is such that the physical and mental strain of athletics, especially of competitive athletics, is chronically detrimental to their general health; for instance, those who are more than seven per cent underweight, or those with low-grade pulmonary infection.

2. To locate those who require special gymnasium work for the purpose of correcting defects.

3. To check up on general physical condition, for the purpose of finding physical defects and urging that they be corrected through the efforts of parents and family physicians.

4. To carry through a medical history of the child throughout his entire school course.

For purposes of classification the director of physical education has worked out a system of grading on the basis of the examinations, as follows:

A. Those who can undergo any amount and kind of gymnasium and athletic work.

B. Those with borderline findings, who are still permitted free choice of and participation in physical activity, but who are carefully watched for its effect on their condition.

C. Those who are given limited or corrective gymnasium work, and are not permitted to take part in competitive athletics.

D. Those with definite pathology or serious underweight, who are not permitted to do any gymnasium work. Many of these are given rest periods during school hours.

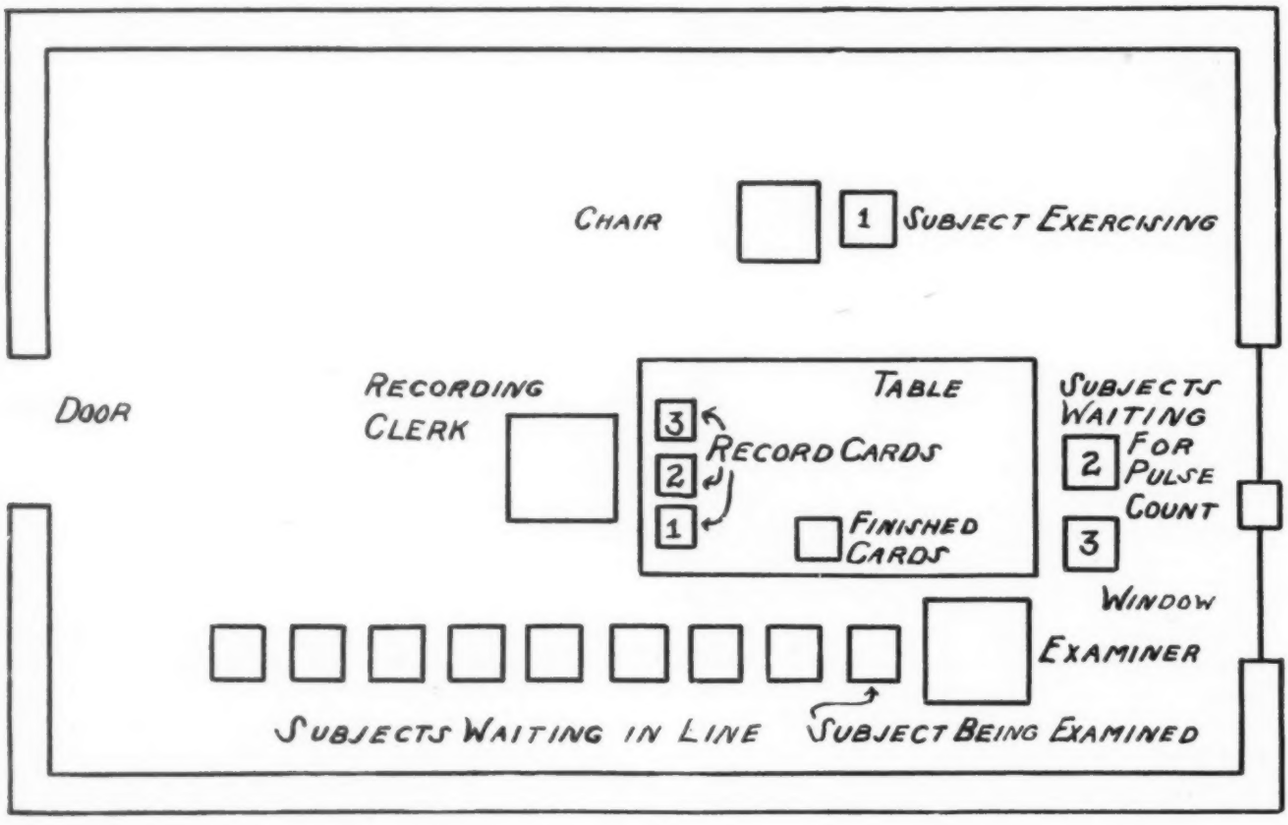
The boy goes through the hands of four people during his examination. The height, weight, and a brief history are taken by the gymnasium instructors at a separate time. The nose and throat are examined by a specialist, and the refraction and hearing roughly tested by a nurse, each at a separate period. The records are all kept on a card, which is kept throughout the entire period during which the pupil is in school. When the boy comes to the physician who does the major part of the examination, all these data are on the card and can be seen at a glance.

It is literally true that they can be seen at a quick glance, for they are recorded in symbols instead of in writing. Names of findings are printed at the edge of the card; then in the proper column, a zero means normal or no findings, and an X indicates a positive finding; (X) indicates that the finding requires medical attention, and *(X)* means that the need for attention is urgent.

The examiner covers the following points:

Neck; thyroid, lymph-nodes, vessels, muscles;
Heart and lungs;
Skin;
Genitals and hernia;
General nutrition;
Posture in respect to spine, shoulders, and abdomen;
Feet and legs.

For testing heart function, a standard exercise is given, requiring the boy to lift his full weight from the floor to a chair twenty times in the standing position. The pulse is counted before exercise, immediately after, and again three minutes later.



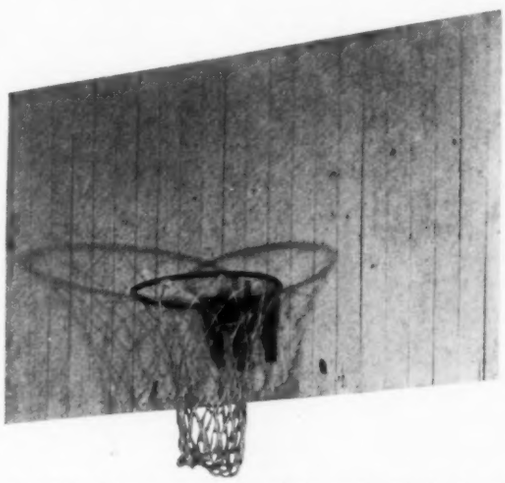
Typical examining room, showing placement of various factors to facilitate rapidity and results.

The elements required to secure speed in the examinations are as follows:

The examiner must have a picture of the examination blank in his mind, so that he can interpret the previous findings at a single glance, and so that he can proceed unhesitatingly with his part of the examination without having to hunt about on the card with his finger for the thing to do next. He should look at the card only for the purpose of checking the recording-clerk's ac-

curacy in placing pertinent data on the card.

A certain amount of practice or drill is essential. The first few periods of examining should be devoted to thoroughness and care, to the acquisition of "form," as the athlete says, without regard to speed. Naturally, the work will proceed slowly during the learning period. Therefore, not only the speed of examining, but its reliability and its general value depend on keeping one man at the work long enough so that he can acquire the technique to do it well. Results from examiners who are frequently changed are not only inefficiently obtained, but are of questionable value.

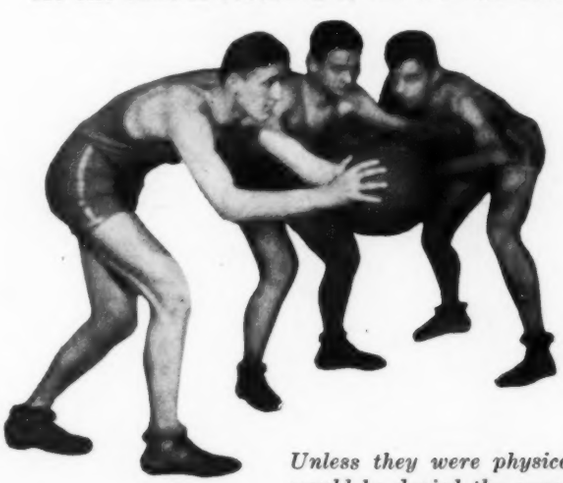


An examiner who has been at the work for several years can go from one step to another with precision and dispatch, without any hesitation or loss of time.

A trained assistant to do the recording is necessary. Of course it is out of question for the physician to do his own recording; if he did, half his time would be consumed in doing something that a boy can do as well. In some of the schools, gymnasium instructors act as clerks; in others, boys are selected from the classes. At first, their work is slow and lacks accuracy. Only with practice do they gain the necessary reliability and the speed to keep up with the examiner. Therefore, it is desirable that the recording-clerk also be kept at his job long enough to learn it well. He and the physician are a team that must be trained to work together. Otherwise time will be wasted in friction, delay, and talking about procedure.

At one time it occurred to me that an assistant might be used to count the pulse after the heart-function exercise-test. That would save time, but it would sacrifice thoroughness; for by counting the pulse himself, the physician can at the same time observe its quality and rhythm, and get information that would escape him if the counting were delegated to an assistant. The maximum efficiency of operation is gained by counting the pulse with the stethoscope at the apex before the exercise and immediately after; and at the wrist with the fingers after the three-minute rest period. Thus, while the rate is being obtained, the observation on the quality of the heart sounds and their rhythm can be obtained simultaneously. A little practice will enable the examiner to count the rate mechanically, while he focusses his real attention on listening to the sounds.

The subjects must be properly prepared. They should be completely stripped. It is best to call them from classes in groups of ten or fifteen. If there is a large number waiting, much time can be saved by giving the necessary instructions to the entire group, in regard to deep breathing, coughing, stepping on the chair, and other things expected of them. If these instructions have to be repeated individually to each boy, much time is wasted. If a dozen or more of them stand in line and watch what is being done, each one learns exactly what to do when his own turn comes; and the examiner can put his entire mind on his examination, with-



Courtesy *Welfare.*—

Unless they were physically fit these boys would be denied the opportunity of playing basket ball.

out being distracted by the need of constantly reminding his subjects what to do.

Instructions for taking deep breaths, coughing, stepping on the chair, etc., are most quickly and effectively given by demonstration. Show the boy what to do and he will grasp it at once; try to explain it to him and it will take five times as long.

Every step of the procedure should be organized, so that the whole scheme moves like a well-oiled machine. The most trivial details require careful attention. Maximum efficiency cannot be achieved without the hearty and intelligent co-operation of the principal or the physical director in whose school the examination work is being conducted.

Simple Methods for Efficiency

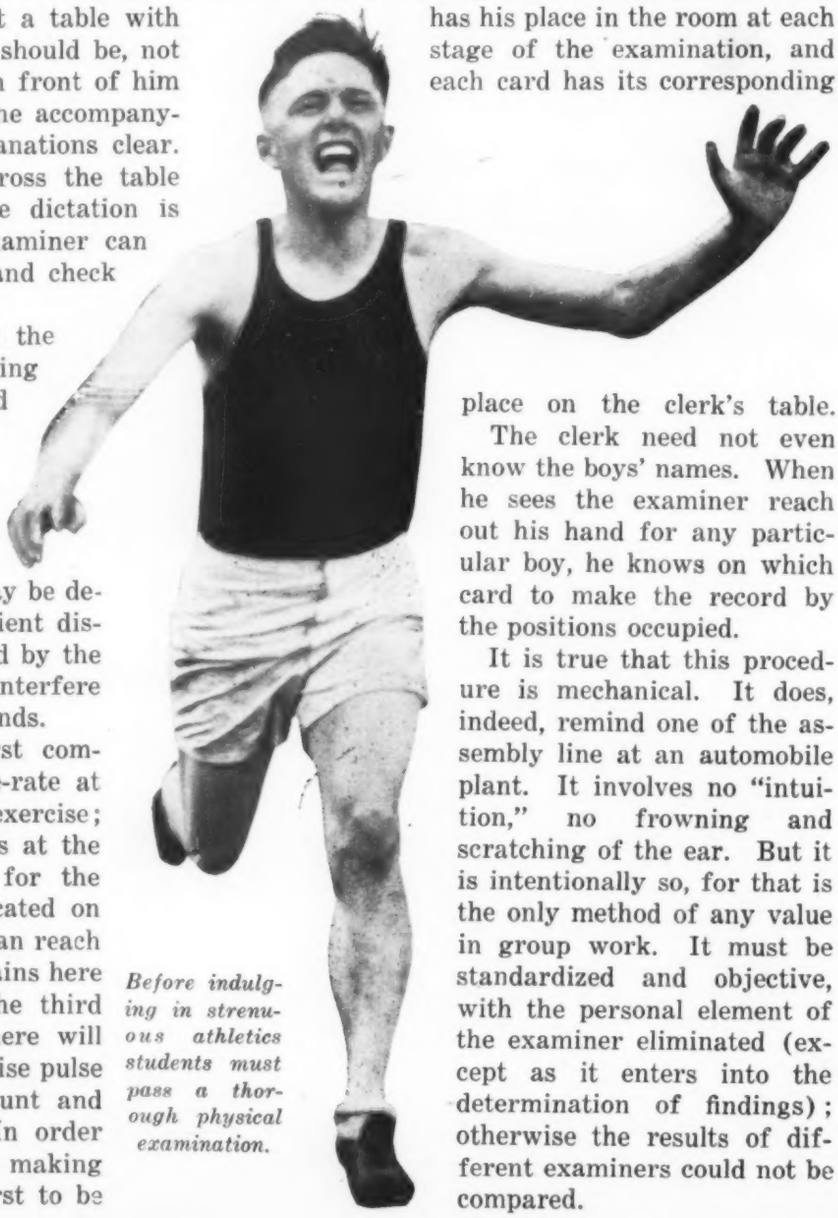
The examinations should be carried on in a large room. The examiner sits at a table with his back to a window. The table should be, not in front of him, but at his side; in front of him is the subject being examined. The accompanying diagram will make these explanations clear. The recording-clerk should sit across the table facing the examiner, so that the dictation is plainly heard, and so that the examiner can keep his eye on the clerk's work and check its accuracy.

A wrist-watch saves time, and the stethoscope should be left hanging about the neck to save handling and searching. The chair on which the exercise-tests for heart-function are done should be at one side in plain view of both the examiner and the recording-clerk, so that errors in the boys' performance may be detected; but it should be at a sufficient distance so that the commotion caused by the boy who is exercising does not interfere with the hearing of percussion sounds.

The general examination is first completed, including the resting pulse-rate at the apex. The boy is then sent to exercise; as soon as he is through he stands at the table just behind the examiner for the after-exercise pulse-count, as indicated on the diagram. Here the examiner can reach him with the stethoscope. He remains here for three minutes, waiting for the third pulse-count. Part of the time there will be two boys waiting for after-exercise pulse counts, one for the immediate count and one for the three-minute count. In order to avoid possibility of confusion in making records, the boy whose pulse is first to be taken stands nearest to the examiner's table.

All of this will be clear from the diagram. Thus, after subject No. 1 has been examined and while he is exercising, the examiner turns to subject No. 2, the next in line. The clerk now has two cards in front of him, the unfinished No. 1 being pushed to the right. When No. 1 has finished exercising his pulse is taken at once, the examination of No. 2 being interrupted if necessary. Then No. 1 waits his three minutes.

When No. 2 is examined and starts his exercise, the examiner begins on No. 3; the clerk shoves the unfinished cards for the first two, to the right and adds the third; now he has three cards before him, and three boys are simultaneously under examination. The card on the left is for No. 3, in front of the examiner; the middle card is for No. 2, exercising; the card on the right is for No. 3, waiting three minutes. Each boy has his place in the room at each stage of the examination, and each card has its corresponding place on the clerk's table.



Before indulging in strenuous athletics students must pass a thorough physical examination.

The clerk need not even know the boys' names. When he sees the examiner reach out his hand for any particular boy, he knows on which card to make the record by the positions occupied.

It is true that this procedure is mechanical. It does, indeed, remind one of the assembly line at an automobile plant. It involves no "intuition," no frowning and scratching of the ear. But it is intentionally so, for that is the only method of any value in group work. It must be standardized and objective, with the personal element of the examiner eliminated (except as it enters into the determination of findings); otherwise the results of different examiners could not be compared.

How Can a Board of Education Function Efficiently?

Three large groups of factors—philosophy, organization, and public relations—must be given due consideration in any program of efficient activity in public education

By ARTHUR B. MOEHLMAN, Professor of School Administration and Supervision, School of Education, University of Michigan

ONE of the moot questions ever present in the field of public-school administration is the board of education. Nearly every meeting of superintendents brings this problem to the floor and it is even more frequently considered in joint meetings where superintendents and board of education members meet together. I would like to discuss briefly some of these fundamental problems. This may be most easily accomplished by raising four pertinent questions and attempting to answer them. The questions, in their proper order, include the following:

1. What is the board of education?
2. What are the powers of a board of education?
3. What are the duties of a board of education?
4. How can a board of education function efficiently?

Let us proceed to a consideration of the first question. The philosophy of the American people in respect to public education has its fundamental legal expression in the several instruments upon which the federal and state governments are based.

Provide, Encourage, and Protect Education

The people of the several states have carried over into their constitutions the legal philosophy, as expressed in the *Ordinance of 1787*, that "religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." The acceptance of this doctrine, together with the liberal legislation in respect to schools, indicates a settled purpose on the part of the several states to provide, to encourage, and to protect educational opportunities for all.

The legal basis of the American public schools rests upon the will of the people to have public education and this will is expressed definitely in: (1) The state constitution; (2) the statutes relating to education; and (3) the court interpretations of (a) the validity of such statutes and (b) the powers implied under the school laws.

For ease in administration, as well as to keep the subject of education close to the people, a series of units known as school districts have been created by state law. Within the limits of the state law, the people of these districts possess rather wide powers in respect to public education. To act as the local agent of the people of the district in carrying out the will of the people in the matter of public education, an elective[1] body has been created by state law. This body is most commonly known as the board of education. The board of education is the local legal agent of the people in the matter of public education.

Formal Powers

The formal powers of the board of education are: (1) To carry out the minimum requirements as expressed through the mandatory laws; and (2) to consider, to accept, or to reject, the provisions of permissive legislation. In all cases where the state laws do not specifically provide, or do not specifically prohibit, the board of education generally considers itself as the agent of the people of the district in planning, executing, and appraising educational activities.

Failure of the board of education to conform to state law as provided for in the statutes relating to public schools makes it liable to incur the statutory penalties in the various states, which include: (1) Fine; (2) imprisonment; (3) both fine and imprisonment; (4) withholding of state subventions; (5) removal from office; and (6) preventing the effective development of an activity through the withholding of approval by the state authorities.

The board of education, elected by, and respon-

[1] This indicates dominant practice. There are exceptions in both appointed boards, and the single commissioner type.

sible directly to the people, is the supreme educational agency under state law for the school district. The duties of the board of education may be conceived as responsibility for: (1) Interpreting the needs of the community and the requirements of the professional organization; (2) developing policies, in accordance with the law and in accordance with the educational needs and desires of the people; (3) selecting the executive; (4) providing means by which professional agents and agencies may make these policies effective; (5) furnishing financial means by which organized activity may be carried on; (6) appraising the efficiency of the agents and the value of the service rendered in terms of worth to the community; and (7) keeping the people intelligently informed of the purpose, value, conditions, and needs of public education within the community[2].

A Vital Problem

This brief introduction brings us to the fourth question. How can a board of education function efficiently? It is the question with which we are most vitally concerned for upon its solution depend, to a very large extent, the character and type of education that the children of any state will receive.

There are three large groups of factors that must be given due consideration in any program of efficient activity in public education. These are: (a) Philosophy; (b) organization; and (c) public relations.

Philosophy may be considered for purposes of this discussion as a way of life. A basic philosophy includes principles and expresses ideals. A school-board member should first of all have a well-organized philosophy of life, its purposes, and its goals. He ought next to have a rather definite philosophy of political organization, its purposes, values, and results. Upon these two basic conceptions of living will depend his philosophy of public education. His concept of the purpose of public education in a democratic social organization will determine largely his attitude in respect to the development of educational policies and organization through which these policies may be successfully achieved.

The question naturally arises whether any group, with as many diverse cultural and racial backgrounds as we possess, can develop a harmonious and well-integrated philosophy upon which there can be substantial agreement. The type of our individual philosophy of life will be conditioned largely by our hereditary and environmental influences. This is a personal question that each individual must solve for himself. Our political philosophy will be largely conditioned by our environmental influences. More specifically the type of government under which we are willing to live will mold our thought. We accept generally, by implication and participation, the concept of a democratic social organization. Since this is true it should not be difficult to develop a philosophy of education based upon such assumption.

In bringing together in logical order the major trends of thought in the field of public education, it is possible to organize a definite philosophy of education that most of us can accept in its broad implications without much dissent. Such a philosophy of education may be expressed as follows:

The purpose of public education shall be to develop individuals who can live successfully under a democratic form of social organization. Successful living means that: (1) They must be able to see the problems in their own and the social life; (2) they must be able to solve these problems successfully; and (3) they must will to take the necessary steps to achieve the solution.

An analysis of successful living shows that there are six major fields of problems. These are (1) Health; (2) ethical character; (3) citizenship; (4) vocational activity; (5) home membership; and (6) recreation, which includes all physical, mental, aesthetic activities that minister to the recreation of the individual. The aim might also be expressed as training in the worthy use of leisure time.

Adopt Comprehensive Policy

In each of these fields it should be the policy to make the child acquainted with the present-day problems, with a knowledge of the achievement and methods of solution developed by man in the past, and with the needs and possibilities of the future.

The methods used to achieve these objectives should be those that will develop in the child in the largest measure: (1) The ideals of worthy individual and social progress; (2) powers of self-direction, self-appraisal, and self-control; and (3) desire and ability to work co-operatively with others in the solution of social problems.

The second group of factors are those related to organization. Organization becomes essential when we pass the range of individual, unrelated activity. A co-operative enterprise, whether in political, social, religious, or economic life, requires organization through which its purposes may be easily and efficiently achieved. The conception of educational organization will be conditioned largely by our accepted philosophy of education.

In educational, as well as other activity, the

[2]See *Public School Code* for Hamtramck, Mich.

function of organization must be conceived as a means and not as an end. The worth and value of all agents and of all agencies must be considered, and changes made, upon the basis of their contribution to the achievement of the educational objectives.

The purpose of organization should be to secure efficient group action for instructional efficiency through: (1) The establishment of routine, formalized procedures, or means, standardized in terms of the basic policy and upon the basis of proved knowledge; (2) the centralization of control and responsibility to make co-ordination of effort and decision possible; (3) the scientific appraisal of the effect of adopted policies and procedures; (4) the scientific variation from adopted policies and procedures for purposes of improvement and the appraisal of such experimentation upon a fact basis; (5) the provision for modification of both policies and procedures upon the basis of objective evidence; and (6) the progressive development of machinery for co-operative effort and growth upon the part of all agents involved in carrying out the above.

Three Complementary Phases

A consideration of the function and purpose of organization leads to the question of structure within organization. All activity, whether private or public, is made up of three complementary phases. These are planning, executing, and appraising. From the standpoint of educational organization they may be defined as follows:

The legislative is that function which makes plans or policies, selects the executive and delegates to him the placing of plans and policies into operation, and provides the financial means for their achievement.

The executive is that function which is concerned with placing into operation the plans and policies, keeping the board of education informed, and furnishing creative leadership to the board of education and to the profession.

Appraisal is that function which attempts through careful examination and study of facts and conditions to determine: (1) The efficiency of operation of the general activities, and (2) the worth and value of the results of the activities in relation to the efficiency and value of instruction.

From the standpoint of amount of activity, personnel, and finance, the executive activity of any school district includes practically all of the work of a school organization. It might be well to review briefly the development of the executive functional activity in order to understand more completely present-day conditions. When public education was first conceived and carried on in the Massachusetts colony the power of making policies, securing funds, providing a school plant, and hiring personnel was successively in the hands of the town meeting, the board of selectmen, and finally the school committee. This was the grandfather of our present boards.

At this early time the school committee adopted policies in respect to length of the school term, the school curriculum, and the qualifications of the teacher. The committee also secured the funds required to carry out its program and furnished a school plant. The activity of executing this very simple program was delegated completely to the teacher, who was the first educational executive. At the end of the term the last day exercises were held and the efficiency of the teacher (executive) was appraised largely in terms of the effect of these exercises upon the community. In this case the school committee and the people exercise also the power of appraisal.

As school systems grew in size and complexity, the organization grew correspondingly. The successive stages through which delegation of power passed may be labeled for convenience, the independent teacher organization, the independent principal organization, and the various phases of the superintendency until at present we have reached the responsible superintendent type of organization. The point to be carefully noted in all of this evolutionary development is that the executive power delegated by the people to the board of education was to a greater or less degree, depending upon time and place, delegated directly to a professional executive, using this term in its collective sense.

Situation Demands Greater Skill

To-day the problem of educational organization is highly complex. The instructional program and its complementary activities demand constantly a larger degree of preparation and skill upon the part of the professional agents. Where it was possible in the early days for members of the board of education to be reasonably familiar with the technique of instruction, such condition no longer exists.

In general, the greatest degree of efficiency in public education activity can be secured when the board of education[3] recognizes definitely the functional activities involved and then proceeds to organize upon this basis. The powers that the people may reasonably expect their agent, the board of education, to exercise efficiently are those of legislation and appraisal. These are the powers generally concerned with adopting policies under

[3]See *Public School Code* for Hamtramck, Mich.

the law, to satisfy the needs and desires of the people, providing means for their execution, and then judging the effects of their execution in terms of the purposes of the policies.

The development of means of procedure and the actual placing of the means into execution should be delegated completely to a responsible executive (the superintendent) with full authority to select and to control such subordinate agents as may be essential to meet the conditions. This conception of structure of organization is commonly known as the unit organization and is now successfully operating in such cities as Denver, Minneapolis, Detroit, Hamtramck, Highland Park, Wyandotte (the last four in the state of Michigan), and many others too numerous to mention here.

Unity of Aim and Effort

Efficiency in administrative organization may be attained through securing unity of aim and effort upon the part of all agents engaged in the educational process from the superintendent, principal, and teacher down through the janitor.

Unity of aim and effort, or co-operative effort, must provide for: (1) Efficiency of achievement; (2) continuous improvement of efficiency; and (3) freedom of the individual.

Efficiency can be secured through: (1) Careful definition of policies; (2) formalization of routine procedures, in terms of policy and proved knowledge; and (3) centralization of control in the superintendent to make decision and co-ordination of effort possible.

Improvement in efficiency shall be secured through: (1) Careful definition of policies; (2) formalization of routine procedures, in terms of policy and proved knowledge; and (3) centralization of control in the superintendent to make decision and co-ordination of effort possible.

Freedom of the individual shall be maintained through establishing organized channels whereby the right of the individual (1) to present evidence of inefficiency of both policies and procedures; (2) to entertain, and to persuade others to entertain, new beliefs, ideals, etc., contrary to the standard policies and means; and (3) to put such new beliefs to experimental trial in an attempt to prove them better than the old, shall be safeguarded from autocratic control by the authorities or misuse by individuals.

A consideration of philosophy and organization brings our discussion to the third problem determining the efficiency of operation of the board of education. This is the problem of public relations[4].

[4]For complete discussion see *Public School Relations*. Rand McNally Co., Chicago, 1927. Moehlman, A. B.

The public school, as we have seen, is the great agency in the process of social reproduction. As a social agency, it must express the needs and desires of the people at any given time, and must be flexible enough to meet these changes. The existence of the schools is dependent upon the will of the people to have public education, as expressed through their constitution and the state statutes, plus the interpretation of these statutes by the courts. As a social agency the efficiency of the schools depends to a great extent upon the ability of the people to realize their purposes, their worth and value, their conditions, and their needs. The schools cannot rise far above the general level of the community. There exists then a distinct obligation, both legal and moral, upon the part of the board of education to keep the public continuously informed of the purpose, value, condition, and needs of their schools. As agents of the people they exercise a responsible stewardship.

Problem Becoming Even More Complex

The satisfaction of this problem was easy in early times. The teacher boarded around and kept the families informed; the schools themselves were simple; there was a certain racial and cultural homogeneity and an exceedingly simple form of social organization. To-day this problem is vastly more complicated. The problem of size; of numbers; of levels of intelligence and education; of race; of religion; of a complicated social organization; of a complicated industrial order; and of an intricate instructional program, all tend to make old methods of keeping the schools close to the people difficult, if not impossible. To-day every agency—social, written, oral, and visual—must be used to meet the conditions. In the interests of greater efficiency in education it becomes the duty of the board of education to adopt policies that recognize these problems and to authorize their executive to make such policies effective through the development of adequate means for informational service through which the people may be kept informed.

The purpose of this brief discussion was to attempt to analyze the question of how the board of education can operate efficiently in the interests of the children and of society. The implication is clear. It is possible for a board of education to operate efficiently, provided that proper consideration is given to the development of a sound social and educational philosophy, to an intelligent consideration of organization with all that organization implies, and to keep the people continuously informed of the purpose, worth, conditions, and needs of their schools.

Co-ordinating Beauty and Utility in the Kindergarten

To make the school's surroundings pleasant, to further initial educational results, was the aim of the Lincoln school addition—read how it was achieved

ORIGINALLY planned as a combination kindergarten-primary building with some provision for enlarging the space devoted to the elementary grades, the three-story addition to the Lincoln school of Evanston, Ill., has had its facilities greatly taxed during the past school term due to the utilization of several of the special classrooms for housing the pupils of the Boltwood Junior High School of Evanston, which was recently destroyed by fire.

Yet the overcrowded conditions have not handicapped either group of pupils too severely, serving rather to emphasize the care with which the addition was planned.

Changing conditions of population due to rapid community growth necessitated the addition of better and larger facilities for caring for the younger pupils in the south district of Evanston, and the central location of the Lincoln school in this territory caused its selection as the site of the planned addition.

Following a study by the architects, it was decided to erect a three-story building at the east end of the old Lincoln school. This addition is connected to the main building at three floor levels and also the basement, in reality being but an extension of the building.

Entering the addition from its east entrance rather than through the corridors of the main building, the stairway opens on the hallway of the ground floor. This room is large and well-illuminated, has a high ceiling, and its proximity

Courtesy Childs & Smith.

Sunlight, streaming in through the kindergarten windows, enhances the pleasant aspect of the room.

Courtesy Childs & Smith.

Columned Archways, beamed ceilings, leaded glass windows in which the main figures denote various characters in nursery rhymes and stories of childhood, terra cotta flooring in colored patterns, and stucco walls of color create a unique atmosphere in the lobby of Lincoln school.

to the cooking room on the north causes it to be used often as a serving room for pupil parties or for luncheons of the parent-teacher association.

The cooking room, which is entered through columned doorways, is equipped with four-pupil cooking units, each pupil being provided with a cabinet containing individual dishes and kitchen utensils. Disappearing stools are connected to these cabinets so that the pupils may be seated at their work. Facilities are provided for twenty-four pupils at six of these cooking units. Beneath the windows along the north wall are located the sinks, while the teacher's cooking unit and desk face the room from the east.

South of the reception hallway is located the sewing room which is equipped with power sewing machines and has space provided for exhibits of the work accomplished by the pupils. A feature of this room is the model bedroom for which many of the furnishings were designed and made by the elementary-grade pupils. Not only does this room give the pupils a conception of a model bedroom but it serves as a children's rest room.

The lobby of the first floor introduces the motif that is carried out throughout the addition. Beamed ceilings, columned archways, leaded glass windows in which the main figures denote various characters in nursery rhymes and stories of childhood, terra cotta flooring in colored patterns, and cream-colored, rough-finish stucco walls—the atmosphere created by these pleasing features is continued in the various special classrooms opening off this lobby.

Realizing the importance of carefully guiding the initial steps of the kindergarten pupil in that difficult period of transition from home to school life and recognizing the assistance that pleasant surroundings will give in easing such transition, special emphasis has been placed on the layout, furnishings, and decorations of the kindergarten.

Courtesy Childs & Smith.

Pleasant surroundings make the period of transition from home to school life easier.

A glance into this room during the middle of the morning session found a darkened room in which there was no activity. The pupils were seated quietly around several tables with their heads pillowed on their arms which were resting on the table. The mid-session rest period was in progress. At the conclusion of this ten-minute quiet period the window shades were raised and the room once more became an active kindergarten classroom. The sun streamed in the large windows at the end and side of the room, lighting up the various features. Chinese lanterns serve to difuse the light when artificial illumination is needed. They are placed in different parts

of the room and in each archway of the balcony, which is located at the west end of the room. These, together with the festoons that hang from the ceiling, give the room a gala appearance.

At the east end of the room steps lead up to a Japanese bridge under which a fish pond is located, while the other end of the room features a balcony that serves as an indoor play room and has space for the play equipment that is of large size. Beneath this balcony are the individual lockers and drawers for the small pupils and a decorative fireplace. The cloakroom, teachers' office, and toilet facilities for the children are also located beneath this balcony.

All furniture in this room is of child's size and was selected to accommodate pupils of ages from four and one-half to six years.

First-grade pupils are accommodated in two rooms to the north of the kindergarten workshop, one room being devoted to those beginning their elementary work.

The second floor is devoted to the science room, the library, and a general classroom, all of which are entered from the lobby which is quite similar to that of the first floor. The science room has been assigned to the art classes of the junior high school, since its numerous and spacious drawers and lockers lend themselves admirably to providing facilities for storing drawing equipment. An anteroom, which was designed as a "growing" room for botany in connection with the study of that science, provides living models for the art class pupils.

Courtesy Childs & Smith.

The library has an atmosphere that is conducive to study.

Leaded glass windows have been provided to isolate the library from the lobby, although these do not appear in the accompanying illustration of the library. The room is large and airy and has five tables each accommodating eight pupils. The beamed ceiling effect that is carried out in both first and second floor lobbies is also used in the library.

Located on the roof of the addition and open to the sky, is a play deck fitted with slides, sand boxes, and other play equipment. This is used by the kindergarten and primary pupils for recreation when the weather is pleasant.

Floor-Placement of Space Provisions in Junior High Schools

Continuing the analysis of recently constructed school buildings, Prof. Pittenger classifies them according to the number of floors found in each building

By B. F. PITTENGER, School of Education, University of Texas

THIS article sets forth the results of a study of the floor-placement of space provisions in thirty-nine junior high-school floor plans published in the *American School Board Journal* from January, 1921, to December, 1925, inclusive. An analysis of these space provisions has appeared in an earlier article in this journal.[1] As there stated, the plans are representative of all sections of the United States.

The basic data of the study here reported are set out in Table I. Here the thirty-nine plans are grouped into five classes: Four plans for one-story buildings; fifteen, for two-story buildings without basement; seven, for two-story buildings with basement; six, for three-story buildings without basement; and seven, for three-story buildings with basement. The number of general classrooms, science rooms, vocational rooms, general service rooms, etc., is shown separately for each plan in each class. That there is a definite relation between the number of rooms and the number of floors provided for in the different plans appears in Table II.

No Direct Bearing

A tabulation, not presented here, of the proportionate quantity of the several space provisions in relation to number of floors, shows no relationship that would not be explained by the facts of Table II, together with the conclusions reached in a previous article, referred to above. In other words, the number of floors in a plan appears to have no direct bearing upon the kinds or proportions of the various space provisions, except as both are affected by the factor of total number of rooms.

Table I is useful chiefly to enable the reader to trace out the space equipment of the individual plans of each of the five types. For the purposes of this study, Tables III and IV are of much greater importance. Both of these tables indicate the floor-placement of each of the several kinds of space provision, in each of the several types of plans, each type being treated as a group. The tables differ in that the figures in the columns of Table III represent numbers of plans, while those in the columns of Table IV represent numbers of rooms. Of the two, probably the facts of Table III are the more instructive.

Explained in Detail

The rest of this article is merely an elucidation of the accompanying facts presented in Tables III and IV.

General classrooms. These, in several-story buildings, are most likely to be found on the two highest floors, with a definite preference for the floor below the highest. Very few are now found in basements.

Science rooms. These, in junior high schools, chiefly general science rooms, clearly seek the topmost floor.

Shops. These, on the contrary, are most commonly found on the lowest floor, either the first floor or basement. Wood and print shops tend definitely to go to the lowest floor, but, in this group of plans, machine shops are more likely to be placed on a higher floor. This fact is difficult to reconcile with the common recommendation that, because of the weight of the machinery required, machine shops will be placed where they will have the most secure foundation. Possibly the type of machinery used in junior high-school instruction makes this less necessary than in the senior high school.

Of the domestic subjects, *cooking* is definitely preferred on the lowest floor. *Sewing,* however, while it seeks the lowest floor, along with cooking, in the smaller plans, is more likely to be placed on the highest floor in the larger plans. Apparently the preferred place for cooking is the lowest, and for sewing, the highest floor; but in small plans, for schools too small to employ separate teachers for these branches, they tend to be placed together, and the preferred place-

[1] *The Nation's Schools,* June, 1928, p. 31.

ment of the cooking room decides the placement of both.

Only eighteen plans make provision for the *commercial branches.* Some tendency to seek the highest floor is evident; a fact that does not harmonize with the general dictum that the administrative offices and the commercial department rooms should be closely adjacent. In this group of plans, the *administrative offices* are always on the first or second floors, with a decided preference for the first.

Only two plans make provision for a *guidance room;* one on the first floor and one on the second.

Mechanical Drawing Follows Shops

Where freehand and mechanical *drawing* are separately provided for, the former is most likely to be housed on the highest floor, while the latter will be usually found contiguous to the shops. Here again there seems to be some relation to the size of school anticipated, and whether one or two drawing teachers are expected. If only one, freehand drawing is likely to accompany mechanical drawing and to be placed on the same floor that has been selected for the shops.

Fifteen plans provide rooms for *music.* In one it is placed in the basement; in all the others, on the topmost floor. The desire to isolate this activity, so far as is possible, is evident.

Location of Rest Rooms

Teachers' and rest rooms show no very decided placement tendencies. They may be found on any floor, even in basements. The first floor in two-story buildings, and the second floor in three-story buildings, are most commonly used, however.

The auditorium (main body) appears on the first floor in twenty-three plans, and on the second floor in eleven. The latter placement seems not to be affected by the height of the general plan, whether for a two-story or a three-story building. Three of the plans place the auditorium in the basement, and one puts it on the third floor. While a definite majority choose the first floor, the number that places it above or below that floor is very noticeable.

Where a basement is provided for, the *cafeteria*

TABLE I—TYPES AND AMOUNTS OF SPACE PROVISIONS

Space Provisions	*One-Story Buildings Four Plans*				*Two-Story (Without Basement) Buildings Fifteen Plans*														
	1	2	3	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. General Classrooms	5	12	6	6	25	8	26	12	13	35	16	16	11	30	27	38	8	14	22
2. Science Rooms	2	0	0	0	1	5	5	0	3	1	2	2	2	2	2	0	0	3	2
(a) General Science	2	0	0	0	1	5	3	0	3	1	2	2	2	1	2	0	0	2	2
(b) Biology	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
(c) Physics and Chemistry	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
3. Vocational Rooms	0	4	0	0	3	11	20	4	18	8	16	9	2	16	8	8	4	8	6
(a) Shops	0	1	0	0	2	2	4	2	11	3	11	4	0	10	3	3	2	5	2
1. Wood working	0	0	0	0	1	1	1	0	6	2	2	0	0	2	0	2	2	0	0
2. Machine	0	0	0	0	1	1	2	2	5	0	8	4	0	6	3	1	0	4	2
3. Printing	0	0	0	0	0	0	1	0	0	1	1	0	0	2	0	0	0	1	0
(b) Domestic	0	3	0	0	1	6	8	0	5	4	3	3	0	6	5	5	2	3	2
1. Cooking	0	0	0	0	1	3	6	0	4	2	2	2	0	3	2	2	1	2	1
2. Sewing	0	0	0	0	0	3	2	0	1	2	1	1	0	3	3	3	1	1	1
(c) Commercial	0	0	0	0	0	3	7	2	2	1	2	2	2	0	0	0	0	0	2
(d) Guidance	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4. Drawing Rooms	1	0	0	0	2	3	6	0	2	4	1	1	0	5	2	0	0	1	2
(a) Freehand	0	0	0	0	1	2	3	0	1	3	0	0	0	3	2	0	0	1	1
(b) Mechanical	0	0	0	0	1	1	3	0	1	1	1	1	0	2	0	0	0	0	1
5. Music Rooms	0	0	0	0	0	0	1	1	1	0	1	0	1	0	1	0	1	0	0
6. Administration	1	1	1	1	2	2	0	1	2	1	2	2	2	1	1	1	1	2	2
7. Teachers' and Rest Rooms	1	2	0	1	4	4	4	0	2	0	4	2	1	2	4	2	1	1	2
8. General Service Rooms	3	2	2	2	7	7	8	2	7	6	11	5	2	6	6	6	4	7	4
(a) Auditorium	1	1	1	1	1	1	1	1	1	1	1	2	0	2	2	1	1	1	1
(b) Cafeteria	0	0	0	0	2	3	4	0	2	2	1	0	0	2	2	0	1	2	0
(c) Gymnasium	1	0	0	0	2	0	1	0	2	0	1	1	1	0	0	1	2	2	1
(d) Health Service	0	0	0	0	1	2	1	0	1	2	4	1	0	0	0	2	0	1	1
(e) Library	1	1	1	1	1	1	1	1	1	1	4	1	1	2	2	2	0	1	1
9. Storage Rooms	0	3	0	3	8	11	4	0	7	6	2	8	2	7	4	9	2	2	11
(a) General	0	1	0	1	4	4	2	0	4	2	1	7	1	5	1	2	0	1	5
(b) Special	0	2	0	2	4	7	2	0	3	4	1	1	1	2	3	7	2	1	6
10. Toilet Rooms	2	5	2	3	13	8	12	4	7	3	2	5	2	8	9	7	2	4	10
(a) Boys'	1	2	1	1	3	2	6	2	2	1	1	3	1	5	3	3	1	2	4
(b) Girls'	1	2	1	1	3	3	4	2	2	2	1	2	1	3	4	3	1	2	4
(c) Special	0	1	0	1	7	3	2	0	3	0	0	0	0	0	2	1	0	0	2
11. Workrooms	0	0	0	0	5	5	2	0	1	3	4	4	0	2	2	4	1	2	4
12. Swimming Pool	0	0	0	0	1	0	1	0	2	0	1	0	0	0	0	0	0	0	0
13. Locker and Dressing	0	0	0	0	5	6	4	0	5	2	6	9	0	7	1	11	2	2	11

is usually placed therein; in other plans, the placement of this space shows no very consistent tendency.

Contrary to accepted principles, in this group of plans the *gymnasium* finds its preferred place in the basement where the latter exists. Where there is no basement, the usual location is on the first floor; but six plans place it on the second floor, and two on the third.

Health Service Accompanies Gymnasium

According to the tables, *health service rooms* are likely to be found on the first floor in two-story plans and on the second floor in three-story plans. A study of the plans individually reveals, however, that where both types of space provision are made, the health service is usually housed on the floor with the gymnasium.

In placing the *library*, the two-story plans seem to prefer the first floor, and the three-story plans the third. The tendency is not very decided, however. Insofar as it exists, this tendency to avoid the second floor in the placement of the library is directly contrary to the advice usually found in the books. Its placement on the third floor in three-story buildings, along with the science rooms, sewing, freehand drawing, etc., is rather difficult to justify.

Storage rooms, except for their preference for the basement where it exists, are likely to be found anywhere. Their placement, of course, is governed by that of the departments they serve.

Separate *toilets* for boys and girls are almost

TABLE II—NUMBER OF FLOORS IN RELATION TO NUMBER OF ROOMS

Type of Plan	*Smallest Number of Rooms*	*Largest Number of Rooms*	*Average Number of Rooms*
One-story	11	29	18
Two-story	24	93	63
Two-story with basement ...	37	70	53
Three-story ...	30	101	67
Three-story with basement ...	55	96	77

IN PLANS CLASSIFIED ACCORDING TO NUMBER OF FLOORS

Two-Story (With Basements) Buildings Seven Plans							*Three-Story (Without Basement) Six Plans*						*Three-Story (With Basement) Buildings Seven Plans*							*Space Provisions*
1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	7	
16	16	17	21	19	14	13	18	11	20	18	16	28	20	17	24	22	34	32	12	.... 1. General Classrooms
1	1	1	2	2	1	2	5	0	3	1	1	4	2	4	0	1	0	3	4	.... 2. Science Rooms
1	1	1	2	2	1	2	3	0	2	1	1	4	2	3	0	0	0	2	3	.... (a) General Science
0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	1	.... (b) Biology
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	.... (c) Physics & Chemistry
9	9	8	9	5	8	6	15	3	5	10	11	17	8	6	14	7	8	6	7	.... 3. Vocational Rooms
6	6	6	5	3	4	4	5	0	2	5	5	6	4	3	5	3	4	2	4	.... (a) Shops
2	2	0	1	3	2	2	1	0	2	2	1	1	1	3	1	1	4	1	0	.... 1. Wood working
3	3	5	4	0	1	2	3	0	0	2	4	4	2	0	3	1	0	1	3	.... 2. Machine
1	1	1	0	0	1	0	1	0	0	1	0	1	1	0	1	1	0	0	1	.... 3. Printing
1	3	2	4	2	2	2	5	3	3	4	4	8	3	3	7	4	4	2	3	.... (b) Domestic
0	2	1	3	2	2	2	2	1	2	2	2	5	1	2	4	3	4	1	1	.... 1. Cooking
1	1	1	1	0	0	0	3	2	1	2	2	3	2	1	3	1	0	1	2	.... 2. Sewing
2	0	0	0	0	2	0	4	0	0	1	2	3	1	0	2	0	0	2	0	.... (c) Commercial
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	.... (d) Guidance
2	2	1	1	0	0	0	5	0	0	2	2	2	3	2	2	3	2	1	1	.... 4. Drawing Rooms
1	0	1	1	0	0	0	2	0	0	1	1	1	3	1	2	2	1	0	0	.... (a) Freehand
1	2	0	0	0	0	0	3	0	0	1	1	1	0	1	0	1	1	1	1	.... (b) Mechanical
0	1	1	0	1	0	0	2	0	0	0	1	2	0	0	0	1	0	0	1	.... 5. Music Rooms
2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	3	2	5	2	1	.... 6. Administration
2	3	2	0	1	2	0	4	1	2	1	3	13	4	3	7	2	2	7	4	.... 7. Teachers' & Rest Room
8	8	6	3	5	3	5	14	2	7	5	9	10	6	11	7	5	5	9	8	.... 8. General Service Rooms
1	0	1	1	1	1	1	2	0	1	1	1	1	1	1	1	1	1	1	1	.... (a) Auditorium
3	3	1	0	1	1	2	4	0	3	2	3	2	2	4	2	2	2	3	2	.... (b) Cafeteria
2	3	1	1	1	0	0	4	0	1	0	1	2	1	3	1	1	0	1	1	.... (c) Gymnasium
0	0	3	0	1	0	1	3	2	1	1	3	4	1	2	2	0	1	3	2	.... (d) Health Service
2	2	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	.... (e) Library
7	3	13	2	6	5	4	14	2	5	6	3	5	2	4	8	18	14	7	6	.... 9. Storage Rooms
6	3	6	1	4	1	4	7	2	3	3	3	2	2	4	8	14	10	7	5	.... (a) General
1	0	7	1	2	4	0	7	0	2	3	0	3	0	0	0	4	4	0	1	.... (b) Special
5	7	6	4	6	6	4	7	6	4	7	6	9	7	8	12	8	7	17	6	....10. Toilet Rooms
2	4	4	2	3	3	2	4	2	2	3	3	4	3	4	4	3	4	5	3	.... (a) Boys'
2	2	2	2	3	3	2	2	2	2	3	3	5	2	4	4	3	3	5	2	.... (b) Girls'
1	1	0	0	0	0	0	1	2	0	1	0	0	2	0	4	2	0	7	1	.... (c) Special
3	4	8	1	1	4	2	6	0	1	4	3	5	2	2	3	4	3	1	1	....11. Workrooms
0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	0	....12. Swimming Pool
8	3	5	3	3	3	0	6	4	2	4	6	3	0	4	5	14	12	11	6	....13. Locker and Dressing

TABLE III—FLOOR PLACEMENT OF MAJOR SPACE PROVISIONS; IN TERMS OF NUMBER OF SCHOOLS

Space Provisions	*One-Story Buildings*	*Two-Story Buildings*		*Two-Story and Basement Buildings*			*Three-Story Buildings*				*Three-Story and Basement Buildings*		
	Four Plans	*Fifteen Plans*		*Seven Plans*			*Six Plans*				*Seven Plans*		
		First Floor	*Second Floor*	*Basement*	*First Floor*	*Second Floor*	*First Floor*	*Second Floor*	*Third Floor*	*Basement*	*First Floor*	*Second Floor*	*Third Floor*
1. General Classrooms	4	12	15	3	7	7	5	6	6	1	6	7	7
2. Science Rooms	1	3	11	1	2	4	0	1	4	0	0	0	5
(a) General Science	1	2	11	1	2	4	0	1	4	0	0	0	4
(b) Biology	0	2	0	0	0	0	0	0	2	0	0	0	2
(c) Physics and Chemistry.	0	0	1	0	0	0	0	0	0	0	0	0	2
3. Vocational Rooms	1	12	10	5	2	4	5	4	5	4	3	0	4
(a) Shops	1	11	8	5	2	2	5	2	0	4	3	0	3
1. Wood working ...	0	8	1	5	1	0	5	0	0	4	3	0	0
2. Machine	0	9	7	4	2	2	3	2	0	2	2	0	2
3. Printing	0	4	1	2	2	0	3	0	0	1	2	0	1
(b) Domestic	1	12	5	4	1	3	2	1	5	4	2	0	3
1. Cooking	0	12	3	4	1	2	2	0	4	4	2	0	1
2. Sewing	0	8	5	0	1	3	1	1	4	3	1	0	3
(c) Commercial	0	3	6	0	1	1	0	3	1	0	0	0	3
(d) Guidance	0	0	1	0	0	0	1	0	0	0	0	0	0
4. Drawing	1	13	6	1	2	3	2	2	4	0	2	0	8
(a) Freehand	0	5	5	0	1	2	0	1	3	0	0	0	5
(b) Mechanical	0	8	1	1	1	1	2	1	1	0	2	0	3
5. Music Rooms	0	0	7	1	0	2	0	0	3	0	0	0	2
6. Administration	4	11	4	0	6	2	2	4	0	0	4	3	0
7. Teachers' and Rest Rooms	3	12	5	2	3	4	2	6	3	4	4	5	4
8. General Service Rooms ..	4	15	13	6	7	3	5	6	5	6	7	7	3
(a) Auditorium	4	12	5	2	3	2	4	2	0	1	4	2	0
(b) Cafeteria	0	7	3	4	1	1	2	0	4	5	2	0	1
(c) Gymnasium	1	8	3	3	2	0	2	2	2	3	2	1	0
(d) Health Service	0	10	0	0	2	1	3	3	0	0	3	4	1
(e) Library	4	10	7	1	4	2	0	1	4	0	1	3	3
9. Storage Rooms	2	13	10	7	2	5	5	4	5	6	4	5	3
(a) General	2	12	8	6	1	5	4	4	4	6	4	5	3
(b) Special	2	13	4	5	1	0	4	1	2	2	2	0	0
10. Toilet Rooms	4	14	13	7	6	6	6	5	5	6	4	7	6
(a) Boys'	4	14	12	6	6	5	6	4	5	6	4	7	6
(b) Girls'	4	14	13	4	5	5	5	4	5	5	4	6	6
(c) Special	2	7	0	2	0	0	1	2	0	2	2	1	3
11. Workrooms	0	11	7	7	2	3	5	3	4	6	2	0	1
12. Swimming Pool	0	4	0	0	0	0	2	0	0	1	0	0	0
13. Locker & Dressing	0	12	8	6	1	2	5	3	0	6	5	4	4

universal on every floor. If any floor is not provided with them, it is likely to be the third in three-story buildings or the second in two-story buildings. The special toilets are placed contiguous to the principal's office, the teachers' and rest rooms, the health service rooms, or the gymnasium. The tendency of some to plan for few and large toilets, and of others to plan for more and smaller toilets, has been observed in the previous article.

Location of Other Facilities

Workrooms are generally found in the basement or on the first floor. The *swimming-pool* is always in the basement if such exists; otherwise it is on the first floor. *Locker rooms* definitely seek the lowest floor. The location of the *dressing rooms,* of course, is governed by that of the stage in the auditorium, and thus may be in the basement or on any one of the three floors.

In the earlier article dealing with the proportional distribution of space in this same group of plans (see reference above), there was outlined a space-schedule for a typical "composite" junior high-school building representative of this series, as follows:

General classrooms	18
General science rooms	2
Shops (wood, machine, print)	3
Domestic (cooking and sewing)	2
Drawing (freehand, mechanical)	2
Commercial rooms	2
Music room	1
Administration rooms	2
Auditorium	1
Gymnasium	1
Cafeteria	1
Health service rooms	2
Library	1
Children's toilets	4
Special toilets	3
Teachers' and rest rooms	1
Dressing rooms	2
Workrooms	2
Locker rooms	2
Shower rooms	2
Guidance rooms	1
Storage rooms	5

It will now be of interest to observe the floor-placement of the several kinds of space provision, as indicated by Tables III and IV of this study.

Let us assume first the most common type of this series; *i.e.* a two-story building without basement. The space allotments to the different floors would be thus:

First floor: Six to eight general classrooms, shops, cooking and sewing, mechanical drawing, administration, teachers' and rest room, auditorium, gymnasium, health service, cafeteria, storage for vocational subjects (except commercial branches), locker and dressing rooms, and toilets.

Second floor: Ten to twelve general classrooms, freehand drawing, science, commercial subjects and commercial storage rooms, music room, and toilets.

The library is about as likely to be placed on one floor as on the other.

But if the plan calls for a two-story-with-basement building, there will necessarily be a considerable shifting of these floor allotments. Two or three general classrooms will probably be moved from the second floor to the first, and the sewing room, and possibly the teachers' room, will be moved from the first floor to the second. The chief change, however, will be to put into the basement much of the space formerly allotted to the first floor. This basement space is likely to include the shops (especially wood working and printing), and the cooking room and cafeteria, together with the appropriate storage space. The gymnasium, locker rooms, and toilets may also be moved down to this floor.

A "Composite" Three-Story Building

The samples of three-story plans afforded by this study are too few to permit of more than suggestions. If, however, the "composite" representative building described above were to be planned for three stories, according to the models herein presented, its space would be allotted as follows:

If without basement: On the first floor would be found four or five general classrooms, the various shops, the guidance and health service rooms, the auditorium, and toilets, storage, and dressing rooms. On the second floor; eight or ten general classrooms, the administration and commercial rooms, the gymnasium and locker

TABLE IV—FLOOR PLACEMENT OF MAJOR SPACE PROVISIONS; IN TERMS OF NUMBER OF ROOMS

Space Provisions	*One-Story Buildings Four Plans*	*Two-Story Buildings Fifteen Plans*		*Two-Story and Basement Buildings Seven Plans*			*Three-Story Buildings Six Plans*				*Three-Story and Basement Buildings Seven Plans*		
		First Floor	*Second Floor*	*Basement*	*First Floor*	*Second Floor*	*First Floor*	*Second Floor*	*Third Floor*	*Basement*	*First Floor*	*Second Floor*	*Third Floor*
1. General Classrooms	29	134	167	8	51	58	31	55	25	2	46	77	36
2. Science Rooms	2	6	24	2	2	6	2	2	12	0	0	0	14
(a) General Science	2	4	22	2	2	6	2	2	9	0	0	0	10
(b) Biology	0	2	0	0	0	0	0	0	3	0	0	0	2
(c) Physics and Chemistry	0	0	2	0	0	0	0	0	0	0	0	0	2
3. Vocational Rooms	4	95	47	29	16	12	25	14	22	26	16	0	17
(a) Shops	1	43	22	20	10	4	19	4	0	12	11	0	5
1. Wood working ...	0	17	2	10	2	0	7	0	0	9	5	0	0
2. Machine	0	20	19	8	6	4	9	4	0	2	4	0	4
3. Printing	0	6	1	2	2	0	3	0	0	1	2	0	1
(b) Domestic	3	40	13	9	4	6	5	3	19	14	5	0	7
1. Sewing	0	13	9	0	1	3	1	3	9	3	1	0	6
2. Cooking	0	27	4	9	3	3	4	0	10	11	4	0	1
(c) Commercial	0	12	11	0	2	2	0	7	3	0	0	0	5
(d) Guidance	0	0	1	0	0	0	1	0	0	0	0	0	0
4. Drawing	1	18	11	1	2	3	2	2	7	0	2	0	12
(a) Freehand	0	7	10	0	1	2	0	1	4	0	0	0	9
(b) Mechanical	0	11	1	1	1	1	2	1	3	0	2	0	3
5. Music Rooms	0	0	7	1	0	2	0	0	5	0	0	0	2
6. Administration	4	19	5	0	9	2	3	4	0	0	11	4	0
7. Teachers' and Rest Rooms	0	31	7	2	4	4	7	13	4	6	8	9	6
8. General Service Rooms ..	9	63	26	16	14	9	21	11	17	15	17	13	6
(a) Auditorium	4	12	5	2	3	2	4	2	0	1	4	2	0
(b) Cafeteria	0	13	8	7	3	1	5	0	9	11	4	0	2
(c) Gymnasium	1	11	4	6	2	0	2	4	4	3	4	1	0
(d) Health Service	0	16	0	0	2	3	10	4	0	0	4	7	1
(e) Library	4	11	9	1	4	3	0	1	4	0	1	3	3
9. Storage Rooms	3	62	24	25	6	8	15	7	13	30	11	12	6
(a) General	1	26	16	13	3	8	6	6	8	24	8	12	6
(b) Special	2	36	8	12	3	0	9	1	5	6	3	0	0
10. Toilet Rooms	11	68	28	13	15	11	15	13	11	18	13	17	17
(a) Boys'	5	26	13	7	8	5	9	4	5	7	5	8	6
(b) Girls'	5	22	15	4	7	6	5	6	6	6	4	7	6
(c) Special	1	20	0	2	0	0	1	3	0	5	4	2	5
11. Workrooms	0	27	12	12	7	4	9	5	5	13	2	0	1
12. Swimming Pool	0	5	0	0	0	0	3	0	0	1	0	0	0
13. Locker and Dressing	0	53	17	18	2	5	19	6	0	22	11	9	10

rooms, the teachers' and rest room, and toilets. On the third floor; four to six general classrooms, space for science, sewing and cooking, with storage, drawing and music, toilets, cafeteria, and library.

If with basement: In basement; the wood and machine shops, cooking (sometimes also sewing), the cafeteria and the gymnasium, locker rooms, storage and workrooms, and toilets. On the first floor; about four general classrooms, the print shop, the auditorium and dressing rooms, and offices. On the second floor; about ten general classrooms, the teachers' and rest room, the health service, the library, general storage, and toilets. On the third floor; the remainder of the general classrooms, rooms for the sciences, sewing, and the commercial branches, with storage, drawing rooms, and toilets.

Some Disadvantages

Of the foregoing, some placements can only be explained as resulting from the limited number of plans. Among these are the placement of the gymnasium and locker rooms on the second floor in three-story-without-basement buildings. In the main, however, the placement will be found to conform with those recommended in the literature. The reader will not, of course, infer that the foregoing is intended as a recipe for the laying-out of any and all junior high-school floor plans. Not all such buildings will parallel in size the buildings contemplated here.

Other factors, such as the size, shape, and topography of the grounds, will also have to be considered. The primary purpose of this article has been to set forth the facts as found in the analysis of a group of actual floor plans, and to show what a building that was typically representative of these plans would be like. But it is probably no stretching of the truth to say that a building laid out in accordance with these suggestions would be found to be fairly satisfactory.

Small Schools of Ohio Stress Vocational Agriculture

In a recent study by E. L. Bowsher, superintendent of schools, Wauseon, Ohio, it was found that sixty-four per cent of the vocational agricultural departments are located in schools with an enrollment of less than 150. This is not to be wondered at since the big purpose of the establishment of these departments is to reach boys who have been born and reared on farms and to interest them in agriculture to the extent that they may remain on the farm and carry on in an intelligent manner.

There were 3,445 farm boys enrolled in the 100 schools reporting in the study. Of these, 2,288 were enrolled in the vocational agricultural departments. In all, 66.4 per cent of the farm boy enrollment was found in the vocational agricultural work. Of the farm boys enrolled in the work, eighty-eight per cent actually lived on the farm, and six per cent were reared on the farm, but were then living in town. This made a total of ninety-four per cent of all the farm boy vocational enrollment, boys who have actually been reared on the farm.

Since it was found that 66.4 per cent of all farm boys attending these various schools were enrolled in the vocational agricultural course, it would seem that these departments were making an appeal to the boy who knows the real work and life of the farmer. An important factor that probably influences farm boys on entering the high school to make a decision to elect the agricultural course, is that in a great many high schools the vocational teacher makes personal contacts with all the boys within the patronage of the school during the summer months as a part of his job of following up the home practical work of his pupils.

The popular appeal of "back to the farm" has its effect in the average rural home and the parents, who in so many cases are responsible for the type of course which their children select when entering the high school, naturally desire that the boys take up agricultural work of some nature.

In addition to that, the farm boy on entering high school feels that the agricultural course contains a great many things which he is already familiar with and that he may be able to get along better in that type of work than in any other which the high school may offer.

Of 845,000 teachers, principals, supervisors, and administrative officers in the public elementary and secondary schools of the United States in 1926-27, a total of 377,462 were enrolled in summer schools during the past summer, according to statistics recently compiled by the National Education Association. Of these, 247,227, or 29.2 per cent of the total number of school men and women of the country, were enrolled in teacher-training or education courses. The largest proportion enrolled from any one state was 62.5 per cent from Colorado; Alabama was second, with an enrollment of 56.2 per cent; Oklahoma was third, with an enrollment of 45.4 per cent; and Tennessee was fourth, with an enrollment of 42.5 per cent of the teachers of the state enrolled in courses for professional improvement.

What Music Does in Developing the Pupil's Character

ONE of the developments in the ever changing picture of education in the United States that has caused more than the usual interest has been that of music among the pupils. Perhaps the real reason for this has been the fact that music has crept into the schools rather than been arbitrarily put into curricula and the subject has actually been developed step by step in a sane, logical, and highly beneficial manner to both the pupils and the teachers as well.

It was not many years ago when the only music known in school education was sort of a community singing class; when in a city of forty thousand inhabitants one supervisor was enough. His duties consisted of going around on a bicycle from elementary school to elementary school, spending an hour in each and leading the assembled pupils in a series of old songs from a stereotyped song-book. The pupils were reseated for the occasion with the sopranos, altos, tenors, baritones, and basses brought together amid much confusion. The only musical instrument that was used was a pitch pipe unless one of the pupils possessed enough talent to learn the music of the songs on the piano.

Support Was Lacking

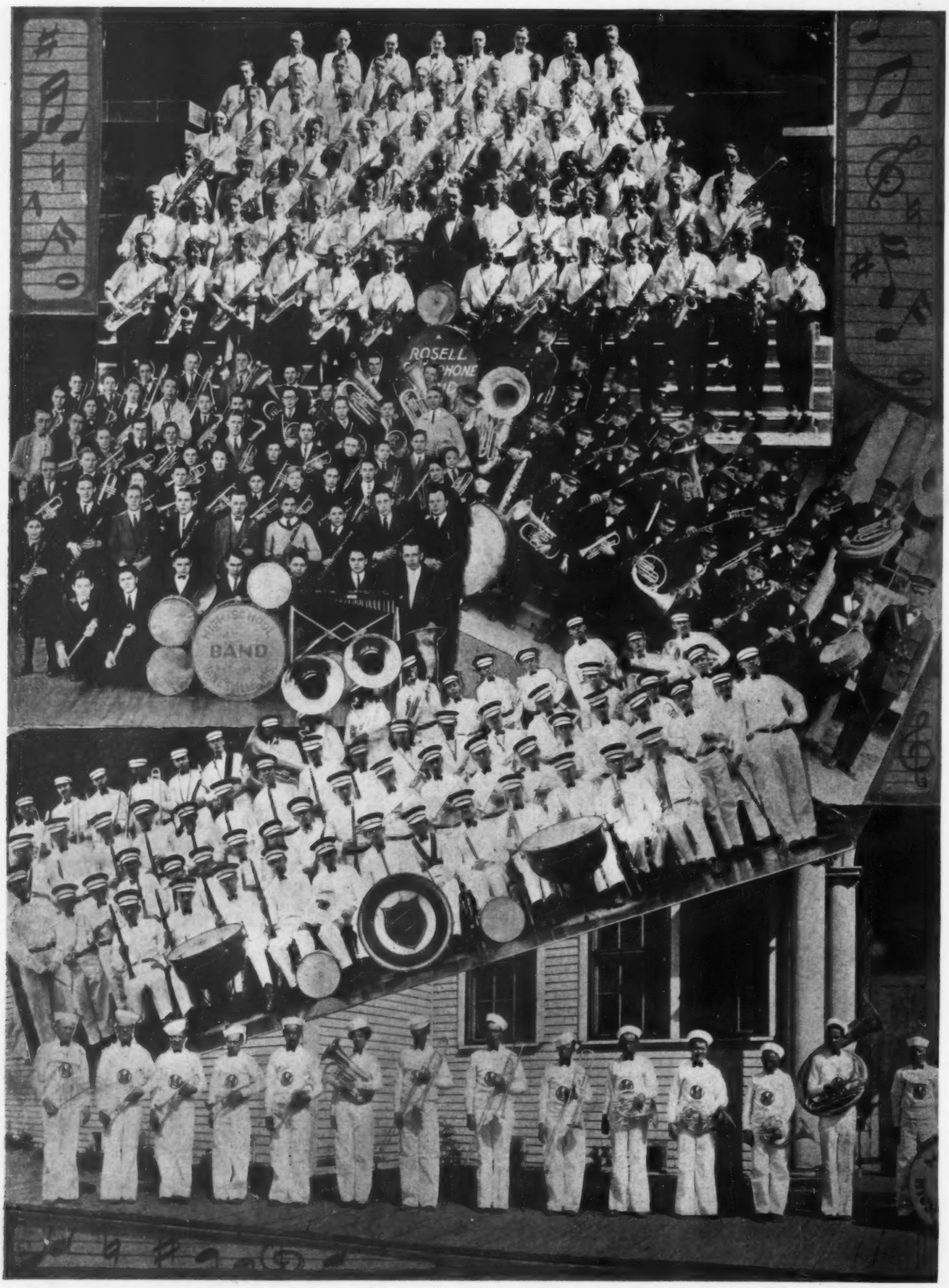
Even this limited amount of musical instruction did not meet with the approval of the parents who felt that they were paying taxes so that the children could learn the three R's and not all this —as they expressed it—"folderol."

Then there was introduced the high-school orchestra under the direction of the same supervisor of music and it rehearsed twice a week for an hour after school. It seldom played for the public because the short practice did not perfect it sufficiently to make a creditable showing even among its own small circle of friends.

But gradually the barriers were broken down, perhaps by the war, perhaps by the natural tendency toward things progressive, or perhaps by a combination of a variety of reasons, until today every school child has the opportunity to receive not only the fundamentals of a musical education but also may learn to play one or more instruments under competent leadership as part of the school curriculum. School bands are so common now that every school in the country boasts of at least one and some of the larger ones have as many as two regular bands and several specialized orchestras. Frequently, the supervisors of music will point with pride to some popular idol in the music field as a product of his or her particular school. However, this is one of the phases of modern education that can be and is participated in by all classes of schools. The elementary, junior, and senior high schools in the medium sized cities, the consolidated rural schools, and the big city high schools alike participate in bands and orchestras.

It has been pointed out that the well-qualified supervisor of music injects into the music lesson and the band practice three distinct benefits to the pupil; namely, culture, discipline, and vocational guidance. To the members of the school faculty there is the benefit of greater aroused interest on the part of the pupil in his lessons because of his participation in music.

Under proper instruction the members of the school band will not learn how to play jazz and popular pieces only nor will they learn the


ROSELL
BAND

WAUKESHA
HIGH
SCHOOL
BAND

The band, which is an important factor in many college activities, may be eventually achieved by the young pupil who masters his rudimentary lessons.

intricacies of only one musical instrument. In the better type schools classical and semiclassical compositions are essayed as well as the current popular music. Along with the lessons will also go some extracurricular work in the line of reading biographies of famous composers and in nearly all of them come lessons of determination and industry seldom found in the biographies of other successful men. The genius who furnishes us with permanent music has usually overcome many difficulties before recognition has come to him, and he has left to posterity a fine example of persistency.

Gain a Cultural Background

Any student of music is anxious to know something of the lives of those who have supplied and made possible our best music as well as to know as much as possible of the present-day concert and opera musicians. If he is in a large center of population he will grasp the opportunity of attending concerts and of joining in musical activities and he will be of an age when he is most impressed by the influences of good entertainment. It is doubtful if it would be possible to gain the cultural background of music more easily than by his participation in the music provided by the schools.

The second benefit to be derived by school music—discipline—is as important as the cultural aspect and to many teachers, considered of far greater importance. It is at band practice that the child will learn to respect leadership and at the same time to strive for this leadership himself. It is not the cold, hard discipline of army training, nor the arbitrary discipline necessary in the classroom, but a happy combination of doing that which he knows is beneficial—and at the same time extremely pleasant—under the competent instruction of a trained musician. He has always the proud position of band leader to look forward to and he is given every opportunity to develop his bent for leadership. By the grace of playing one particular kind of a band instrument he may be given the opportunity of solo work and as he develops his ability he may become the soloist of the band. Or he may be the band master.

The Lesson of Team Work and Harmony

There is also the great lesson of team work and harmony, and without boring the pupils the competent supervisor can make every one of these lessons count for a great deal. There is no music without harmony and it does not take a blackboard demonstration to prove to the pupils that there is no benefit in life without the same kind of harmony as they are learning in the music lesson. Team work represented by the band and the perfecting of this team work into perfect

harmony wins acclamation, recognition, and prizes in school competition and there is no more striking demonstration of its values in after-school life than can be shown in band practice and participation.

Finally, comes the vocational aspect of the music lesson. During the past few years due to the phonograph, the radio, and the moving picture theater popularization, there has been a most active demand for musicians. Remuneration is high, the work is pleasant, and the opportunities great. At the time described in the beginning of this article when music was given little attention in schools, there was but little demand for musicians. The town band offered the only outlet for the man who played "brass" and it must be admitted that the bandman of that day was a low fellow given to hanging around the pool room in his leisure hours which were pretty nearly all of the time. Perhaps on Thursday night he would have to go to band practice at the Odd Fellows' Hall or the fire house, but his days were free and the band was engaged only irregularly for parades and band concerts in the town square in summer, and a few dances during the winter.

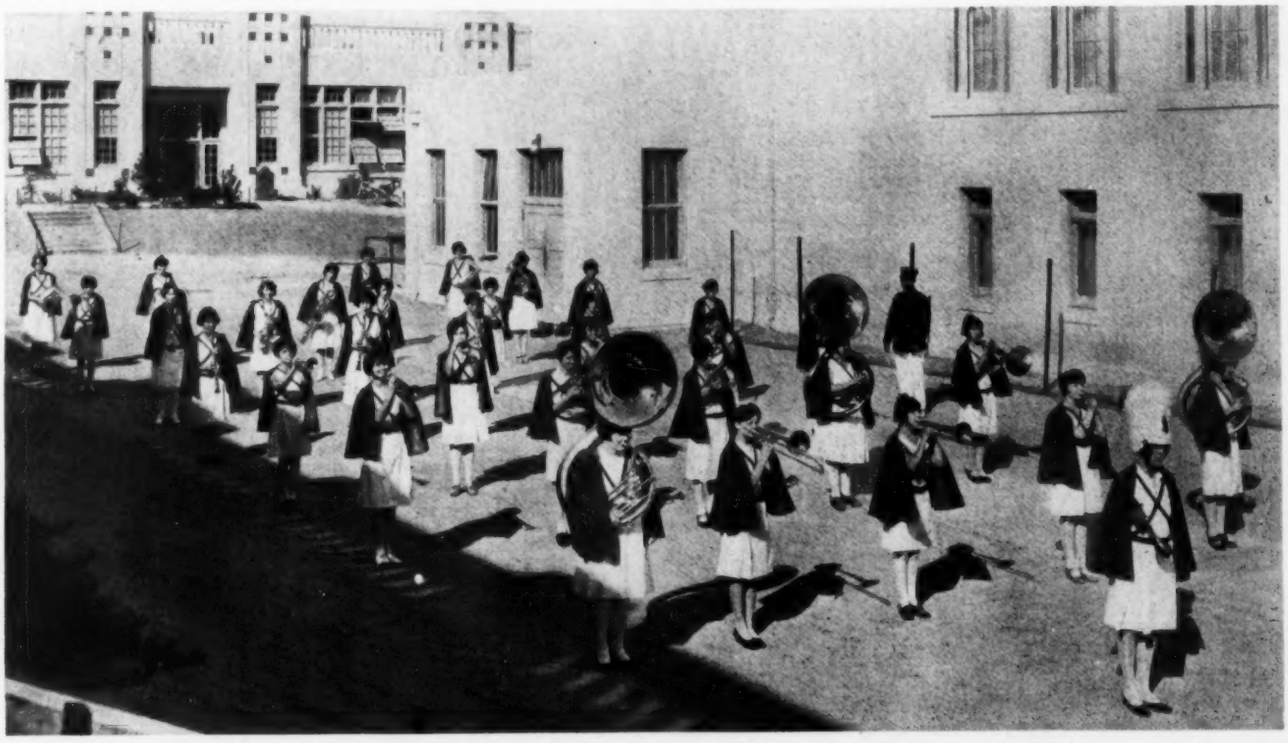
Music as a Vocation

To-day the member of a band or orchestra is assured of steady work and excellent pay. He goes to work much the same as any other man although his hours may be different, and on pay day his envelope is much heavier than that of the average worker. If he is better than average he is in great demand by philharmonic orchestras and among the better type of bands. If he has extraordinary talent, the bidding for his services is spirited and he reaps the benefit. Recently a story was told of how a particularly talented musician was brought to this country for one of the big Eastern philharmonic orchestras. His success was instantaneous and within less than six months after landing on these shores he was a soloist in Paul Whiteman's band at a salary generally associated with bank presidents. Whiteman had outbid the philharmonic orchestra.

Fundamentals of Discipline

So here we have the picture of the pupil being instructed in an art that has centuries of culture as its foundation and absorbing much of that culture, at the same time learning the very fundamentals of discipline that will prepare him to be a model member of society, the while he actually learns a most lucrative vocation.

What are the other benefits to the pupil? For one he is kept off the streets at least more hours of the day than the boy who has no music to learn and he is thrown into the society of other children who have an interest in things musical. He will probably spend his evenings in furthering his musical education or attending good concerts and recitals. He will become a better pupil in his other studies because, either consciously or unconsciously, he is learning the value of close



Membership in school bands is open to both boys and girls of Taft Union High School, Taft, Calif., the latter often forming organizations that compare favorably with those composed of boys.

application to the subject in hand and the value of leadership in all fields of endeavor as well as music and if he has done his required reading he knows the rewards of diligence.

All of the foregoing depends upon the selection of an intelligent and sympathetic music supervisor but it has been found far easier to obtain intelligence and fine feeling among those with a musical education than among those who have not such a background.

Preferential Treatment for School of Education Graduates

In forty states the graduate of a school of education is on exactly the same footing for certification as the graduate of a college of liberal arts who has taken the required work in education, while in seven others, the graduate of a school of education has advantages as compared with other persons seeking certification, according to a study made by Arland D. Weeks, State College, Fargo, N. Dak. These seven states are Ohio, Rhode Island, South Carolina, North Dakota, West Virginia, New Hampshire, and Wisconsin.

At the Ohio State University only graduates of the college of education are eligible for four-year professional certificates. All others must secure this certificate by examination before city or county boards. In Rhode Island a graduate of a college of education may be certificated for all types of public schools, both elementary and secondary, whereas graduates of liberal arts colleges with credits for professional courses in education, and experience, may be granted a certificate valid only in secondary schools.

Education Graduate Favored

In South Carolina the professional school of education is recognized in that the professional academic certificate issued on eighteen semester-hours of education is granted for a period of five years, while that on the A.B. or a B.S. degree alone from liberal arts colleges is granted for a period of three years. In North Dakota the school of education graduate may secure a life professional certificate at the end of one year of probationary teaching, while the liberal arts graduate with sixteen semester-hours in education has a probationary period of five years.

In West Virginia it appears that attendance at a teacher-training institution is contemplated for the granting of certificates. Certificate regulations in New Hampshire have recently been amended to provide that graduates of four-year teacher-training courses in accredited normal schools or teachers colleges shall be granted licenses of the highest grade, a special consideration. In Wisconsin graduates of schools of education who have completed the prescribed teacher-certificate courses are granted teacher licenses without further examination. Persons not enrolled in teacher-certificate courses must submit credits for individual evaluation.

Thus it appears that a beginning has been made of favoring in certification the graduate of the professional school of education. In some quarters the feeling is expressed that more extensive preferential treatment should be given than is the case at the present time.

Possibly many other states will come to a distinction between the graduate of a school of education and the graduate of a college of liberal arts who has elected educational courses. Such distinction might rest upon the assumption that the student in the school of education has chosen teaching as a career and has made correspondingly thorough and thoughtful preparation therefor; while the liberal arts college graduate might be less positively credited with serious professional purpose. For a number of states where the certification regulations make no distinction it is reported that boards of education and superintendents of schools prefer graduates of schools of education. Such preference may have as much to do in building up schools of education as would changes in certification regulations.

Not a Stepping-Stone Vocation

It is likely that the prestige of schools of education will increase with the conviction that education has professional possibilities and that it should less often be regarded as a stepping-stone vocation, for which last-minute preparation may be made by financially worried students ultimately bent on engineering or medicine. While to shut off access to teaching to all not coming as graduates of teachers colleges or schools of education would scarcely be warranted to-day, a more definite recognition of such graduates is proper and may be expected in certification laws.

The trend in modern education is toward a more thorough training in those subjects regarded as basic. More time is being devoted to the study of reading, writing, and arithmetic in the public schools to-day than ever before. There is a greater application of the results of research and scientific technique to the problems of instruction. A part of the program of schools should be the strengthening of the work of instruction in these fundamental subjects, by making use of the best principles of modern supervision and instruction.

A Study of Student Government in Colleges

Faculty-student co-operation is undoubtedly the best form since youthful radicalism is tempered by mature experience and adult conservatism is invigorated by new viewpoints

By JOHN L. MANAHAN, Dean, University of Virginia

JAMES BRYCE, in his book entitled, *The Hindrances to Good Citizenship,* presents the principles underlying popular government as follows:

"Everywhere in human society two principles have been and are at work, principles antagonistic to one another, yet equally essential to the well-being of civil society. These are the principle of Obedience and the principle of Independence, the submission of the individual will to other wills and the assertion of that will against other wills. The former principle, carried to excess, gives Despotism. The latter, carried to excess, and generally diffused through a people, ends in Anarchy. The undue extension of the former has been so widespread as to have brought nearly all communities into a stage of despotic government and (till very recently) kept most of them there, whereas Anarchy has scarcely existed except in that detachment of individuals or families from one another which belongs to the very rudest states of society.

"The reasonable mean between, or an adjustment to one another of, these two principles creates what we call Free or Popular government, in which a relatively large number of individual wills agree to form a collective will of the community, and to obey that will cheerfully because each individual has borne a part in forming it.

Advantages of Popular System

"This scheme seems to offer not only the best security that the interests of all will be fully considered and the common interest best attained, but also the best prospect that each individual will be stimulated to bear his proper share in the efforts and labors of the community. Accordingly, men are now agreed, far more generally agreed than at any previous moment in history, that governments of a more or less popular type are to be preferred. The progress of civilized societies is evidently in that direction.

"Popular government, however, resting on the recognition of the principle of Independence no less than on that of Obedience, requires for its success the presence of the conditions which make Independence real and serviceable. Each member of a free community must be capable of citizenship. Capacity involves three qualities—Intelligence, Self-control, Conscience. The citizen must be able to understand the interests of the community, must be able to subordinate his own will to the general will, must feel his responsibility to the community and be prepared to serve it by voting, working, or (if need be) fighting.

"Upon the extent to which these civic capacities are present in the community, the excellence of its government will generally depend. Such as are the stones, such will be the temple into which they are fitly compacted together.

"Of the three requisites, the two former are the more frequent and are the more easy to produce by proper training. The last, Conscience, or a sense of civic duty, is the rarest."

What Is Education?

Let us, therefore, assume that government in college will require the same qualities and ask ourselves the question, What is Education?

In the Harvard Club in Boston there is one room set aside for the use of the graduates of the Medical School and over the fireplace in that room there is an inscription, a motto, which states in a sentence the philosophy of the medical profession. It reads, "We dress the wound, God heals it." If a devoted student of education were to construct a similar motto, which would in like manner set forth the object of the teaching profession, I think it would read, "We feed the mind, God makes it."

Following out this conception of education the wise teacher will give the student an opportunity to use his own mind in socially profitable ways in the making of knowledge. From the stand-

point of the school it becomes the process of providing conditions that necessitate the child's using his own mind in socially profitable ways in the making of knowledge. The teacher cannot supply knowledge and cannot make mind. His function is to provide the environment, to direct the child to the facts and methods of handling them that have been found to be socially useful, and to leave the rest to him.

Correct Conception of Education

Many students of education have made the mistake of deriving "education" from the wrong Latin root. They have readily accepted the meaning of education carried by the Latin derivation, meaning, to lead out, this being the meaning of the Latin "Ēdūcō" (Ēdūcere, Ēdūxī, Ēdūctus). Education, however, is derived not from "Ēdūcō" meaning to lead out, but from "Ēdŭcō" (Ēducāre, Ēducāvi, Ēducātus) which means to bring up, to foster, to rear, to nourish, etc. One can readily see, therefore, that the proper derivation of education has a vital bearing upon the whole educational process and method. It forms the necessary basis for any program of student participation in educational control. In my judgment, this conception of education is vital to the organization and administration of any successful program of student government in any division of our educational system, but more especially in the college field.

The relationship of the student to the teacher in matters of responsibility and control is well illustrated in the accompanying diagram.

An analysis of this diagram shows clearly that there is an ever increasing responsibility resting upon the pupil and an ever decreasing responsibility resting upon the teacher as the pupil advances from the lower to the higher divisions of our school organization. At the left of the diagonal line the increase in the pupil-responsibility is shown, and at the right the ever decreasing teacher-responsibility. The following observations are valid from this diagram:

1. That during the preschool period the teacher has no control over pupil-development.
2. That the child himself cannot be expected in the beginning to assume but a very little responsibility.
3. That when the pupil formally enters the primary school the major responsibility for his direction rests upon the teacher.
4. That when the student leaves the school to enter life the teacher's responsibility and opportunity end, the student becoming a citizen and assuming full responsibility for his own character and conduct.

This conception of the relationship existing between the teacher and the student in a democratic school system is both fundamental and essential in the organization and administration of an effective system of student government.

In an analysis of the function and value of student government one is confronted with at least three types of organizations:

(a) Student self-government.
(b) Faculty or administrative government of students.
(c) A mixed form of government, that is, co-operation of faculty and students.

The general consensus of opinion seems to be that student self-government unrelated to faculty authority rarely, if ever, succeeds. This is largely due to the fact that student control in educational institutions is by legislation and regulation placed upon the administrative authorities of the institution. This, therefore, makes it necessary that all student government programs derive their authority from faculty or administrative action. This is termed "delegated authority or responsibility."

An Account Must Be Rendered

In a democratic form of government, and likewise in a democratic school system, authority and responsibility delegated to a group presuppose a higher authority and responsibility in the final analysis. For instance, in a democratic form of government the people delegate to certain representatives, certain duties and responsibilities, but in practice those delegating the authority and responsibility expect an accounting. In other words, if the representatives to whom authority and responsibility are delegated fail in the discharge of their duties, those delegating that authority and responsibility, by a subsequent vote, modify the regulations or choose other representatives.

The nature of students, young or mature, rebels at government by authority alone. Such government is foreign and contrary to the fundamental processes underlying democratic control.

It seems, therefore, that some form of faculty-student co-operation will provide the best form of government. This I believe to be true for the following reasons:

1. The students are the ones who know more about the actual conditions of college life and work among the students.
2. The average intelligence of a typical college body is, in reality, high, and the intelligence of the ablest members is very high, indeed.
3. A typical college student body is inherently idealistic.

4. The leaders among the students are usually quite responsive to a reasoned appeal for constructive service.

5. The faculty members will gain an understanding otherwise inaccessible of conditions of student life and work and will benefit in the development of constructive measures of any sort by the sense of general confidence that such co-operation tends to develop.

6. If you wish to do anything for students it is well to do it with them, otherwise they may think that you are doing it to them.

7. Administrative officers in particular will have the satisfaction of knowing after decisions have been made as a result of co-operation, that students, even though they dislike and disagree with the decision, know that it has been reached loyally, and is just and desirable in the honest opinion of those who made it.

8. The students gain those values that come from friendly association with older and more thoroughly trained men in investigative and constructive thinking; a broader and better proportioned knowledge of education as a whole and perhaps of the general social problems; the sense of freedom to suggest and to protest which should make a very great difference by the thwarting and the stimulation of creative thought and idealism; and the same sense of general confidence, already alluded to, which should lead to greater satisfaction in many phases of the under-graduate's experience while in college.

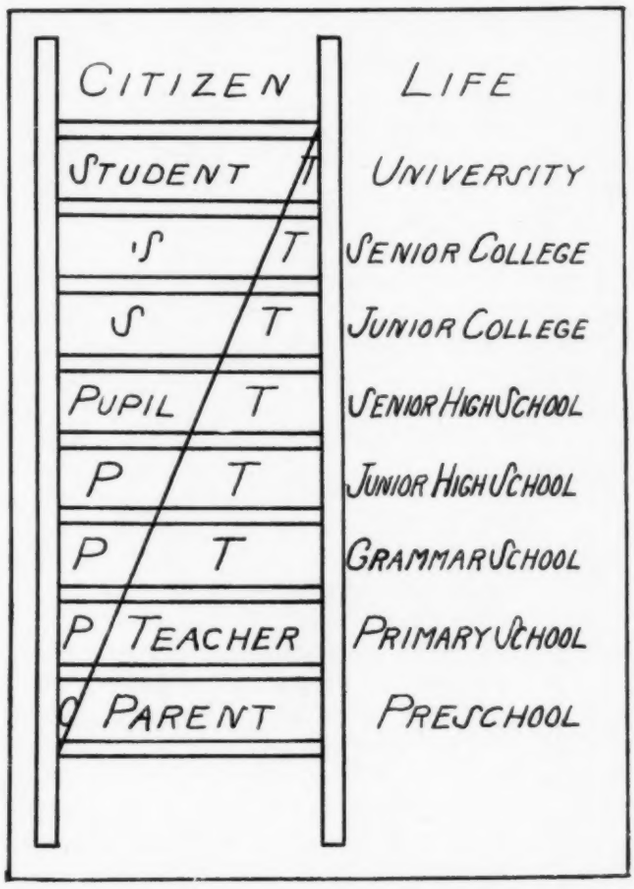
Rewards of Faculty-Student Co-operation

The experience of faculty-student co-operation carries in itself its own immediate reward in the friendly association of older and younger members of the same community; and it has, I believe, possibilities for educational development that we have hardly begun to realize.

A considerable degree of moral development in right ideals, judgment, and wills is an essential prerequisite to student government. Students, even at eighteen or twenty years of age, are unable to bear all the responsibility of freedom and self-government at once. In any social group there must be obedience, for obedience is the law of the universe—obedience voluntary, self-initiated, cheerful, if possible, but compulsory, if need be—for any obedience is better than license and anarchy. Self-government needs to be given gradually, point by point, to a community as to an individual, until the group as a whole can take and use liberty and self-government. We each need to study, understand, and consciously develop the group spirit and group life in our own institutions.

The honor system assumes that every student is a gentleman (or lady) and requires that he (or she) shall act as such in every college activity. Any violation of this principle in any phase of college life is looked upon as a violation of the honor system.

Every student government program to be successful must likewise be based upon student honor. Unless the principle of honor in all activities is practiced by the student body as a whole, the system automatically resolves itself into one



Responsibility increases as the child grows older.

dependent upon detective and police powers and practices.

Realizing the importance of securing detailed data on the organization and administration at the present time of systems of student government, a letter was addressed to the presidents of sixty-five colleges and universities, including colleges for men and women of both junior and senior grades, public and private, and some of the leading universities in all parts of the country. Replies were received from fifty-five of these. In many instances the replies were in the form of personal letters from the presidents or deans, giving in detail the history and administration of the student government programs. Published material in the form of student's hand-

books, catalogues, special announcements, etc., was also received.

Furthermore, letters were addressed to certain other leaders in college administration and higher educational thought asking for such information as they had in their possession bearing upon the "function and value of student government."

The writer is especially grateful to all who have so generously responded to his request for information and assistance.

It is evident, for the most part, that those in authority in the colleges and universities are exceedingly proud of the record made by their student government organizations. There were only a few instances in which the sentiment seems to be against student participation in the administration and control of a wide range of student problems.

Various Titles of Organizations

From the constitutions, letters, and other printed material received, eight different names of student government organizations appeared, as follows:

1. Student Council.
2. Student Association of Self-Government.
3. Associated Students of —— College.
4. College Government Association.
5. Self-Governing Association.
6. Students' Association.
7. Honor Council.
8. Student Government Association.

The majority of the institutions reporting use the term "Student Government Association."

In practically every institution the faculty and administrative authorities are recognized as being finally responsible for all control within the institution. They may, however, and usually do, delegate certain power and responsibility to student organizations. They cannot, however, in delegating such power escape the final responsibility. The following quotation is typical of the provisions delegating such authority:

> The President and Faculty of ——— College hereby grant to the student government association, subject to revocation at any time, should a necessity therefor, in the judgment of the President and Faculty, arise, the following powers—.

While the phrasing of such grants of power vary, the principle remains the same in practically all instances. However, in some cases those powers reserved to the faculty and executive officers of the institution are clearly specified, as evidenced by the following:

> It is understood, however, that the following matters are reserved to the faculty and executive officers of the college:
> 1. All academic matters.
> 2. All matters affecting the health of the college and community.
> 3. Housekeeping.
> 4. Serving and preparation of food, etc.
> 5. The organization of all societies, clubs, etc.
> 6. The control of all property belonging to the college, such as furniture, buildings, grounds, etc.
> 7. Chapel exercises.
> 8. The president reserves the right to handle special cases of discipline which in his judgment can best be handled in this way.

The purpose of student government organizations is sometimes stated in very general terms and sometimes in considerable detail. For instance, in one constitution we find the following: "The purpose of this association shall be the government of the under-graduate student body." A more detailed statement of the purpose, as found in the constitutions, is illustrated by the following quotation:

> The purpose of this Association shall be to encourage active co-operation in the work of self-government; to uphold the highest standards of honor and integrity in all matters of personal conduct; to strengthen cordial relations between faculty and students; to enact and enforce laws according to the Grant of Powers; to provide for the formation of an official body to give adequate and effective expression to the opinion of the student body in matters of general college interest.

The co-operative relations of the students and the faculty in matters of student control are illustrated by the following statement of purpose:

> The object of this Association shall be to co-operate with the Faculty in securing the observance of the agreement between the students and the Faculty, and to control the conduct of the students in all matters not strictly academic.

Three Groups of Powers

Three groups of powers are usually provided for—legislative, executive, and judicial.

The legislative powers are vested in the association as a whole. Sometimes the whole association discharges the judicial functions also, though many constitutions reserve the judicial powers for the executive council. In one institution the legislative power is centralized in the senate.

The executive powers are invariably vested in the executive council or senate.

The administration of the systems of student government is lodged with a council or senate. In some institutions such council, or senate, is composed entirely of students, in others of both students and faculty representatives. In general, all classes (seniors, juniors, sophomores, and

freshmen) are represented, though in some institutions the freshman representatives have no vote in the council. Each class elects its own representatives. Some organizations provide for equal class representation (usually about three members from each), whereas, others provide for major representation from the senior and junior groups with a decreasing number in passing from upper to lower class groups.

Senate Representatives

Again we find both student and faculty representatives on the senate, as illustrated by the following:

Senate. The executive and legislative work of this association shall be centralized in a Senate made up as follows:

1. Faculty and administrative members—
   - (a) The President of the College or her deputy.
   - (b) Four members of the faculty and administration elected by the Academic Council.
2. Student members—
   - (a) The President of this Association (presiding).
   - (b) The Senior Vice President of the Association.
   - (c) The Chairman of Judiciary.
   - (d) The Junior Vice President.
   - (e) One Junior member (acting as Treasurer).
   - (f) One Sophomore member (acting as Corresponding Secretary).

Matriculation in college invariably involves membership in the student government organization where such an organization exists. One institution reported that all members of the faculty hold honorary membership in the students' organization, entitling them to participate in discussions without having a vote.

Two types of pledges are noted: One applying to all members of the association, and the other applying to members of the council or senate. The pledge applying to the officers and members of the executive body is practically an oath of office and represented as the following:

> We agree on our honor that neither as individuals nor as members of any organization shall we be moved by personal or partisan influence in relations to matters pertaining to the Student Council and to the interests of the College.

Some constitutions prescribe in great detail the duties and powers of the various officers, as follows:

Powers and Duties.

Section 1. Of the Officers.

(a) The president of the Association shall call and preside over all meetings of the Association.

(b) The president of the Association as the president of the Council shall:
   1. Preside at Council meetings provided for and call special meetings.
   2. Request meetings of the Conference Committee.
   3. Serve on Judicial Board.
   4. Present bills and recommendations to the House.
   5. Direct the routine business of the Council.
   6. Address the House, but not vote with it.

(c) The president of Judicial Board shall:
   1. Call and preside over meetings of Judicial Board.
   2. Address Council, but not vote.
   3. Assume duties of president of Association in the absence of or at the request of the president.

(d) The secretary of the Council shall:
   1. Keep records of Council meetings.
   2. Publish reports of Council meetings.
   3. Assist in the routine business of the Council.

(e) The treasurer of the Council shall:
   1. Have charge of the finances of the Association.

(f) The president of the House of Representatives shall:
   1. Preside at meetings of the House.
   2. Present bills and recommendations to the Council.

(g) The vice president of the House of Representatives shall:
   1. Assume duties of the president in the absence of or at the request of the president.

(h) The secretary of the House of Representatives shall:
   1. Keep records of meetings.
   2. Post notices of elections and mass meetings of the Association.

Methods of Support

The fees per session assessed for the support of student associations range from $1.00 to $2.75. Most institutions also report a budget committee with power to distribute the revenue thus collected among the various college organizations according to their respective needs and activities. From one institution head the following statement was received:

"This University is, I believe, the only school known to have adopted the central budget plan for the management of student activities. Working through a central office, by which all activities are directed, the method of operation provides a special budget fund to take care of every campus undertaking recognized by the University, by means of a student fee included in the sum paid by each student at the beginning of the school year. Every organization is cared for both in a financial way and in the working out of its schedules.

The average northern college, so I have been told, has no student fee system whatever, and the progressive student fund provisions have attracted attention and favorable comment. Although ninety per cent of our students vote for student officers, only about forty per cent take active interest elsewhere."

Eight Standing Committees

The following standing committees are reported by one or more of the institutions:

1. Nominating Committee.
2. Budget Committee.
3. Committee on Revision of the Constitution.
4. Calendar Committee.
5. Handbook Committee.
6. Standards Committee.
7. Welfare Committee.
8. Curriculum Committee.

Most of these committees have obvious functions. However, it should be stated that the curriculum committee is responsible for recommending changes in the program of studies and curricula for the consideration of the faculty. This represents an organized effort to reflect student desires, needs, and criticism in curriculum revision.

Most student government organizations attempt, through the use of a point system, to regulate the participation of students in administrative positions. The purpose of this system is to prevent any one student from being overloaded with campus activities, and to have the benefit of such activities distributed among more students. By this system students are allowed to hold offices valued in number of points conditioned upon the scale of assigning values to each office. There is no uniformity even in the classification of officers or the value assigned to each. Some classify the offices as major, submajor, minor, and subminor, with values in points ranging from five for the subminor to thirty for the major.

Another institution arranges the point-values of various offices from nine to one and has the restriction that no student shall hold offices amounting to more than nine points in any one term.

The important consideration is not the number of points assigned to each office but the principles involved; namely, the prevention of overloading any student, and second, the guarantee that honors will be distributed.

In a paper on student government delivered at the meeting of the National Education Association in Salt Lake City in 1920, by Dean Kerr of Milwaukee-Downer College, Milwaukee, Wis., we find the following statements:

1. Student government is one expression of a whole democratic movement. It is a part of the same movement that has caused faculties to seek by committees, representatives, and general vote, a share in the government of the institution they serve instead of leaving all responsibility and initiative to presidents and trustees.
2. Not government but the student is the center of our thought. Student government is not an end but a process. Social efficiency can be produced only by participation in the activities of society.
3. Student government does not imply turning the entire government of the institution over to students. The best conditions in modern family life come from co-operation between older and younger members, parents and children, so also must faculty and students co-operate if we are to have the best conditions of government and community life for all.
4. A member of the faculty must be guide, counsellor and friend, and adviser and not a supervisor.

Some Advantages Claimed

Summarizing, we may say that some of the advantages claimed for student government are:

1. It teaches principles and methods of representative, democratic government, such as students need to know in later life.
2. It creates the institutional point of view and develops a sense of responsibility.
3. It trains in independence of thought and action.
4. The practice of the principles underlying student government makes for sound character development.
5. Opportunity is afforded for training in leadership.
6. It develops and conserves public opinion, as to "what to do" and "what not to do."
7. The student's superior knowledge of student affairs, problems, and life, is capitalized.
8. It arouses a spirit of loyalty and good will toward the college and faculty.
9. It applies the principle of "learning by doing."
10. Opportunity is offered for training in and practice of the principles of co-operation.
11. Student government organizations recognize the fundamental aims of modern education.
12. Provision is made for a convergence of the student-faculty view point on all matters connected with college and university life.
13. Student government is generally recognized as a privilege and a challenge.
14. The ideal student government emanates from the student body because willingness to assume responsibility cannot be delegated nor legislated.

Certain limitations reported in the letters received that deserve consideration are:

1. There is a tendency on the part of officers

in student government organizations to over-rate their importance and extend unduly their authority.

2. There is a change of officers every year, so the leaders are always amateurs.
3. There is great difficulty in developing a sense of individual responsibility among the students.
4. There is constant unwillingness to report on one another.
5. Student Councils are inclined to hasty action in investigating serious cases because of their desire to get action rather than to be sure the action is right.
6. There is a tendency for members of the Council to devote too much time to the student government work and too little to their studies.
7. It places responsibility too early on young shoulders.
8. Students often have a feeling that the students' decisions are superior to faculty decisions and when the two disagree the friction arising usually paralyzes the students for a long while and they refuse to co-operate.
9. Student government organizations are not well-suited to junior colleges, though they are more successful in the senior colleges.
10. It takes more time and more skill on the part of faculty members than direct faculty government.
11. The students who object most to faculty control are usually the ones who need it most, and who want student *self*-government only.

Conclusions

Student-faculty co-operation in government in colleges is fundamentally sound and necessary because:

1. The broad, general principle evolved out of all concrete efforts to establish government and secure justice is that group interests and in general, group judgments, are superior to individual interests and judgments.

2. Just and stable governments must recognize the basic rights and privileges of the governed.

3. The fact that the governed have a part in determining the laws and regulations to be obeyed plays an important part in establishing a sound psychological basis for willing obedience.

4. College students as a group represent a superior or select class of citizens and can be relied upon to maintain the integrity and honor of their chosen institution as well as their individual honor.

5. Student government associations offer the best opportunity for the practice during periods of training and growth of the fundamentals of good citizenship in a democratic form of government and education.

Qualifications for School-Board Membership

"What educational and other qualifications should the state set up for school-board membership is a question that is sometimes asked. Among the many qualifications for such membership that may be found in the school laws are: Taxpayer, citizen, not a holder of another public office, good moral character, patron of the school, resident of the city for a specified time, able to read and write. In practice men and women of comparatively high educational attainments are selected for membership on city boards of education. According to a recent study made by Dr. George S. Counts, University of Chicago, twenty-three per cent of the members of city boards of education have attended elementary school, only thirty-one per cent have attended high school, and forty-six per cent have attended higher institutions of learning.

Professions on Board

"What vocations should have the largest representations on the board of education is another question. No one can say with certainty that the board should be composed of a certain number of business-men, housewives, lawyers, ministers, physicians, grocery-men, and laborers. In practice, according to Dr. Count's study, the male members of city school boards belonging to the following occupations are: Proprietors, thirty-two per cent; professional service, thirty per cent; managerial service, fourteen per cent; commercial service, six per cent; clerical service, six per cent; manual labor, eight per cent; agricultural service, two per cent; unknown, two per cent.

A Suggested Qualification

"One of the qualifications that some persons would set up for school-board membership is that the board member be a patron of the schools. Count's study shows that fifty-three per cent of the members of city boards of education have children in the public schools, and that forty-seven per cent do not have children in the public schools.

"What the qualifications of school-board members should be depends to a certain extent upon what are considered the duties of such members. In brief, the chief qualification for school-board membership should be business sense, a strong desire to improve the schools, and a willingness to hand over the actual running of the schools to paid experts."—*W. F. Deffenbaugh, chief of the city schools division, Bureau of Education.*

The Building Program's Relation to Ability Grouping

Although an accepted procedure in American education, a greater development of ability grouping has been forestalled by lack of classroom facilities, as in Lynn, Massachusetts

By SAMUEL ENGLE BURR, Director of Research, Lynn Public Schools, Lynn, Mass.

ABILITY grouping of pupils has become an accepted procedure in American public education. Its effectiveness in instructional success has been proved, yet its adoption is far from universal. One reason for this is that it is based upon scientific procedures that are not yet universally practiced—there are still many schools that do not use objective means for measuring the finer variations in the ability of pupils. Another reason has been the plea of un-Americanism in ability grouping. As a matter of fact, it is the only fair and democratic method of grouping, giving, as it does, each pupil a chance to profit to the best of his ability, by the teaching program. But one of the chief causes (and the least recognized) for failing to group children on an ability basis has been the lack of harmony between the scientific procedure and the building construction program.

We believe that our public schools should have as their basic aim, the giving of the best possible educational opportunities to every child. If we are to put this into practical operation, then all the departments of the school plant must plan their actions with this purpose in view.

Group Instruction Best

Modern conditions make it necessary for us to handle large groups of pupils. Educational research has proved that group instruction is the best method to use, insofar as results are concerned. It has also been established that better results can be secured from group instruction when we use homogeneous rather than heterogeneous grouping. Consequently, the psychological basis of the teaching, the supervisory program, the course of study, the business and executive management, and the schoolhouse building construction program must all be worked out upon a basis of the ability grouping of pupils.

Our modern educational research has devised successful objective methods for mental measurement that have made it possible to carry ability diagnosis to a greater degree of fineness than ever before. In order to use this new possibility, two distinctive types of schools that base their practice upon the recognition of individual differences have developed in this country.

One type centers its practices about the recognition of the individual as such—the Winnetka and Dalton plans are examples. The other type recognizes individual differences, but classifies each pupil as a member of a general group, basing its practices upon group instruction. These are the schools that use ability grouping to its fullest extent, and they far outnumber the schools working upon the complete individualistic plan.

Four Steps of Ability Grouping

A full acceptance of ability grouping involves four distinct steps.[1]

The first step is the grouping into grades of work or years of experience. This has had almost universal adoption, even in the one-room rural school.

Then comes the segregation of highly exceptional pupils of all types into special classes designed for them. Thus we have special classes for the feeble-minded and dull pupils, for pupils foreign to English, for pupils with physical handicaps, speech difficulties, and others.

Next, the pupils of any grade level can be grouped into sections according to their ability to succeed in school work. Some teachers refer to this step alone as "ability grouping."

Finally, any plan of ability grouping must be flexible, subject to adjustment whenever and wherever necessary, and must be fully supplemented by expert coaching teacher work.[2]

Such ability grouping has advantages that are

[1] For a more complete explanation of the proposals for classification and grouping, see "Ideals in Pupil Classification," *Journal of Education*, Vol. CVI, No. 21, Dec. 5, 1927, p. 551.

[2] For the plans involving the work of the coaching teacher, in Lynn, Mass., and in Lawrence Township, N. J., see "The Work of the Coaching Teacher," *Journal of Education*, Vol. CVII, No. 9, Feb. 27, 1928, p. 275, and "The Coaching Teacher at Work," *Journal of Education*, Vol. CVII, No. 15, April 9, 1928, p. 442.

immediately apparent and that are constantly being emphasized and recommended by our educational leaders. At the recent meeting of the Department of Superintendence of the National Education Association in Boston, this subject appeared on the program and was again advocated in detail. Several of the most recent books on education present concrete evidence of its worth, not only in the elementary field, but in the secondary field as well. The recent survey of our Lynn school system developed specific plans for its extension here.[3]

In order to section pupils upon an ability basis, within a grade, it is necessary to have at least two classrooms of each grade, in one building. Better results can be secured with three or more classes per grade accommodated under one roof. This means that a primary building serving grades I, II, and III, should have at least six classrooms, and preferably more. Similarly, an elementary or grammar school serving only grades IV, V, and VI, should have at least six rooms, in order to secure best results. Again, a building designed to serve all the lower grades

[3] *Report of the Survey of the Schools of Lynn, Mass.* Made by the Institute of Educational Research, Division of Field Studies, Teachers College, Columbia University. Published by Bureau of Publications, Teachers College, Columbia University, 368 pp. Chapter V, on "Classification and Progress," outlines the development of this extension work in detail.

TABLE I—ELEMENTARY SCHOOLS, LYNN, MASS., JANUARY, 1927

No.	*Name*	*Date Constructed*	*No. of Classrooms*	*Remarks*
1.	Aborn	1897	14	Satisfactory for ability grouping
2.	Aldworth	1890	2	Suburban—three grades in one room
3.	Bacheller	1900	4	Primary only—one room per grade
4.	Baltimore	1884	4	Primary only—one room per grade
5.	Beach	1924	2	Primary only—one room per grade
6.	Breed Elem.[1]	1923	8	To be enlarged
7.	Brickett	1911	13	Satisfactory for ability grouping
8.	Bruce	1903	8	To make unit with Burrill
9.	Burns	1875	4	To be abandoned
10.	Burrill	1893	8	To make unit with Bruce
11.	Center	1840	6	To be abandoned
12.	Chatham	1911	4	Primary only—one room per grade
13.	Cobbet	1927	24	Satisfactory for ability grouping
14.	Coburn	1895	4	Primary only—one room per grade
15.	Cook	1895	4	Can form unit with Highland School
16.	Euclid	1896	4	Primary only—one room per grade
17.	Fayette	1870	4	To be abandoned
18.	George	1850	2	To be abandoned
19.	Highland	1883	6	Can form unit with Cook School
20.	Hood	1887	4	Primary only—one room per grade
21.	Ingalls Elem.[1]	1871	1	Now sixth grade only. To be remodeled for elementary
22.	Jackson	1850	2	To be abandoned
23.	Laighton[2]	1869	2	Has been closed. To be abandoned
24.	Lewis	1898	8	To make unit with Sanborn
25.	Lincoln	1913	10	Satisfactory for ability grouping
26.	Lynn Woods	1921	2	To be enlarged
27.	O'Keefe	1921	6	Six grades—one room per grade
28.	Parrott	1872	6	Six grades—one room per grade
29.	Pickering Elem.[1]	1915	4	Fifth and sixth grades—satisfactory
30.	Sanborn	1880	8	To make unit with Lewis
31.	School Street	1845	6	To be abandoned
32.	Sewell-Anderson	1920	4	Primary only—one room per grade
33.	Shepard	1865	18	Satisfactory for ability grouping
34.	South Common	1890	4	To be abandoned
35.	South Elm	1880	2	To be abandoned
36.	Tracy[3]	1898	12	Satisfactory for grouping
37.	Washington	1915	20	Satisfactory for ability grouping
38.	West Neptune	1891	2	To be abandoned
39.	Whiting	1869	12	Satisfactory for ability grouping

[1] These three schools are housed in parts of three junior high-school buildings.
[2] Laighton School was closed in 1927.
[3] Tracy School was destroyed by fire in 1927. It is now being rebuilt with eighteen rooms.

from I to VI, inclusive, should not be planned with less than twelve or fifteen regular classrooms. All these buildings should have one or two special rooms as well. Only by such planning can the full fruits of modern measuring and testing programs be secured.

Of course, there are small communities and sparsely settled regions where elementary schoolhouses of this size are impossible. In such situations, the teacher staff must do its best to recognize the individual differences disclosed, but it will require greater teaching skill to bring out the same results that we can confidently expect under the ability grouping plan. Unfortunately, such small communities seldom can afford to pay for this superior type of teaching service. As a consequence, the larger school system, which uses ability grouping, secures the expert teacher instead of the small system.

Also Appears in Secondary Schools

This same problem of ability grouping also presents itself in the secondary-school field, but as high schools are usually larger in size, and as the problem of ability grouping can be handled there without so much bearing upon the building program, it will not be considered in the present discussion.

At the time of the school survey made during the winter of 1926-27, thirty-nine elementary schools were in operation in Lynn. These are shown in the accompanying table, together with the date of construction and the number of rooms in each. Eight of these buildings had only two rooms each, twelve had only four rooms, and twenty-two of them had only one classroom per grade. In other words, in twenty-two of these buildings, ability grouping could not be used. Out of about 9,000 pupils enrolled in the elementary grades in January, 1927, slightly more than one-third of the children could not be grouped on an ability basis because of this imperfect building program. Another third could be grouped only imperfectly upon a scientific basis for this same reason. Less than 3,000 elementary children were in buildings large enough to permit three or more sections per grade.[4]

If the small buildings had been in good condition or had been of recent construction, it might have proved difficult to discontinue their use, even though they did not meet the educational requirements of to-day. The table shows, however, that most of them have seen long service. They are not in the best repair. Their sites are inadequate and poorly chosen.

[4] Figures from Lynn School Survey Report mentioned previously, pp. 166 and 200.

The combining of these materialistic factors with the educational need has now secured official action that will immediately eliminate ten of these small buildings. They will be noted under the "Remarks" column of the accompanying table on page 53.

Factors Permitting the Change

The action that is making this change possible is as follows:

1. One junior high school is now operating on a part-time schedule in one of the senior high-school buildings, its own remodeled building now being used by the Cobbet elementary school.
2. The Tracy School, which contained twelve rooms before the recent fire, is being rebuilt to contain eighteen classrooms, not including special rooms.
3. Another junior high school is now housed in two buildings. One of these is to be enlarged. The other building will be remodeled for elementary classes and will become an eighteen-room elementary school.
4. A third junior high school has an elementary-school wing that is to be increased to double its present size.
5. A new twelve-room elementary school will be erected in the southeast section of the city.

Other building operations are planned, but these five steps are the ones that will affect the possibility of ability grouping in the elementary grades.

In addition to these actual building operations, other adjustments will be made. For example, in three cases, there are two substantial, serviceable buildings located within a single block. For purposes of grouping, these three sets of buildings will be considered as only three units. They are the Lewis-Sanborn, the Highland-Cook, and the Burrill-Bruce.

Progress Accomplished With Program

As a result of these adjustments, which must be considered the first steps of an ambitious program, only eleven buildings will remain, where ability grouping by sectioning within grades will be impossible, rather than the twenty-two buildings thus limited, in January, 1927. In terms of pupils, it will leave only 1,500 pupils who cannot be grouped on an ability basis, rather than somewhat in excess of 3,000 who could not be grouped thus in January, 1927.

In other words, the possibilities for the ability grouping of pupils are being taken into account as important factors in the building construction program now going forward in the Lynn Public Schools.

Underwood & Underwood

School Savings Banking Shows Steady Increase

SEVEN years ago, the savings bank division of the American Bankers Association, reported 2,736 schools having school savings. As of June 30, 1927, the number was 12,678, according to W. Espey Albig, deputy manager of the division. The number of pupils enrolled in schools having a school savings system has increased from 1,015,653 to 4,658,156 in that seven-year period. The number of pupils participating in school savings has increased from 462,651 to 3,815,785.

Seven years ago the deposits amounted to $2,800,000, while those for the year ending June 30, 1927, totaled approximately $23,700,000. The net savings on the same date were $9,464,178.93, and the bank balances $39,137,073.91.

In comparison with the previous year, the number of schools increased 11.4 per cent; the number of pupils enrolled in the schools having a school savings system, 7.8 per cent; the number participating, 12.1 per cent; the deposits, 15.7 per cent; and the net savings, 7.9 per cent.

Various attempts have been made to explain the growth of school savings in the United States, which, beginning in the nineteenth century, made indifferent progress until about ten years ago. A study of the statistical tables reveals the fact that the progress of school savings is generally forward in any state where once it has gained a considerable foothold. It develops most rapidly in towns and cities. The cause of this comes from the fact that in urban centers most persons receive their pay at stated periods, and the children enter into school savings with greater assurance of continued participation.

In a number of states—California, Connecticut, Illinois, Indiana, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Washington, and Wisconsin—school savings have assumed really large

proportions. In seven states gross deposits for the year have passed the million mark. In New York gross deposits are in excess of three and one-half million dollars, and in Pennsylvania, in excess of four million dollars.

The persistent and steady increase in deposits in school savings accounts seems to have as its basic factor the desire of the parents to have their children learn the meaning and use of money.

School savings in its inception attracted little attention from educators. As it has assumed a larger place in the educational field, educators are coming to appreciate more and more its value.

The fear that has haunted many advocates of the teaching of income management in the schools —that the expense incurred by the depository bank handling the school savings would eventually prove a bar to the continuation of school savings—has not been realized, and many banks which are acting as depositories at considerable financial expense regard the department of school savings as one of their most valuable contributions to society.

There is no doubt but that the mounting deposits under school savings have been the cause of considerable research as to the basic factors that have caused the whole school savings movement to grow.

The American people have the happy faculty, either by conscious thought or by indirection, of placing in the school those subjects that should be universally taught and in which instruction may be better imparted than anywhere else. Impartial evaluation of courses of study in the pub-

SUMMARY AND COMPARISON—1925-1926 AND 1926-1927

States	Number of Schools 1925-26	Number of Schools 1926-27	Number Participating 1925-26	Number Participating 1926-27	Deposits 1925-26	Deposits 1926-27	Net Savings 1925-26	Net Savings 1926-27
Alabama	32	31	9,515	7,845	$ 37,362.40	$ 27,460.36	$ 18,628.45	$ 9,229.09
Arkansas	11	7	1,489	2,300	8,409.14	6,841.17	1,658.47	2,836.18
California	1,765	2,223	214,903	283,476	1,022,380.89	1,288,512.37	631,255.09	795,901.68
Colorado	68	26	.....	150	5,216.60	6,401.30	5,216.60	6,371.30
Connecticut	482	493	95,127	99,136	683,122.69	785,721.28	440,035.56	497,231.71
Delaware	44	43	26,097	17,658	202,998.48	206,394.59	76,662.29	39,174.21
District of Columbia	54	51	6,409	6,172	46,795.04	38,333.53	46,795.04	38,333.53
Florida	29	29	13,261	15,589	107,515.30	93,600.79	54,724.12	18,763.05
Georgia	114	101	44,259	30,990	199,140.94	202,277.67	69,218.57	39,400.77
Idaho	2	2	192	343	817.22	1,007.14	562.32	752.25
Illinois	512	510	137,118	145,591	1,153,317.00	1,205,711.00	342,843.91	297,312.92
Indiana	314	272	86,222	88,185	607,851.64	650,873.58	236,423.18	157,770.19
Iowa	233	223	64,677	64,510	391,810.30	403,495.50	117,680.28	85,178.01
Kansas	54	70	17,662	20,650	90,691.79	111,130.62	28,036.17	44,701.85
Kentucky	205	205	55,017	47,241	228,138.09	234,391.38	32,925.78	38,353.65
Louisiana	86	90	34,439	39,289	74,124.22	99,802.25	12,682.54	99,802.25
Maine	133	232	19,259	26,542	53,451.15	105,525.53	50,024.77	85,434.77
Maryland	87	91	34,613	39,331	122,832.01	128,667.95	90,900.73	90,151.39
Massachusetts	967	987	206,924	215,790	1,302,569.21	1,390,518.39	830,591.49	806,897.85
Michigan	426	453	128,077	136,853	781,029.46	775,908.93	273,257.97	215,042.14
Minnesota	490	503	153,568	158,244	616,710.01	640,026.79	382,785.04	207,052.81
Mississippi	9	7	2,125	1,907	21,974.28	12,807.01	11,816.64	4,826.23
Missouri	117	139	66,919	57,517	271,987.97	303,965.43	91,028.94	93,791.89
Montana	9	7	2,432	2,414	9,417.07	13,714.64	5,614.74	6,225.33
Nebraska	83	73	32,008	35,257	224,851.10	214,005.39	34,436.47	34,922.99
Nevada	.....	.....	.....	400	.....	492.23	.....	*138.59*[1]
New Hampshire	9	61	.....	2,866	4,200.32	13,043.43	2,262.27	9,605.84
New Jersey	442	553	134,184	284,477	1,253,588.96	1,593,616.50	559,852.58	638,374.15
New York	1,058	1,187	547,149	660,372	2,847,332.68	3,654,388.64	1,784,346.74	2,277,277.42
North Carolina	40	41	17,265	17,237	43,258.63	55,844.22	17,363.63	15,330.30
North Dakota	.....	.....	.....	.....	.....	4,703.76	.....	3,082.69
Ohio	601	601	220,101	227,973	1,463,537.48	1,623,743.70	520,998.92	520,094.39
Oklahoma	55	56	13,615	18,048	63,812.09	136,726.51	48,603.76	103,935.57
Oregon	107	118	41,238	54,462	184,119.30	275,914.08	144,913.73	125,819.25
Pennsylvania	1,544	1,799	493,820	572,956	3,555,582.78	4,163,098.22	888,860.45	1,168,943.59
Rhode Island	307	315	82,590	84,462	858,565.99	940,233.00	218,460.11	190,575.07
South Carolina	16	16	3,043	3,815	9,546.76	15,849.51	8,946.76	9,939.10
South Dakota	.....	51	.....	9,919	.....	64,096.84	.....	43,781.92
Tennessee	53	86	26,149	35,375	159,486.07	207,742.67	46,125.35	42,740.28
Texas	.....	43	4,987	17,474	17,696.56	62,910.02	12,298.68	41,970.95
Utah	.....	16	.....	2,810	.....	16,368.58	.....	11,889.14
Vermont	18	20	2,351	1,134	8,707.62	9,010.04	6,933.14	7,622.46
Virginia	97	72	32,408	32,706	202,385.48	205,838.90	31,953.54	26,617.42
Washington	246	266	113,658	119,927	793,762.97	919,432.44	368,803.03	323,469.47
West Virginia	121	162	29,195	40,592	167,450.23	202,268.02	52,986.21	67,076.49
Wisconsin	331	347	189,581	85,800	572,412.96	591,020.90	171,216.99	120,713.98
Totals	11,371	12,678	3,403,746	3,815,785	$20,469,960.88	$23,703,436.80	$8,770,731.05	$9,464,178.93

[1] Loss.

lic schools serves constantly to eliminate some subjects and add others to the curriculum. In earlier days this situation did not exist.

In the rural communities the child studied such subjects as his parents desired and for which they furnished books. As the body of society came to realize more and more that definite scholastic training was essential for all children, if the state were to prosper, education was made compulsory and the books were supplied without charge to the pupil, and new subjects were introduced into the course of study.

Income Management a Factor

Income management, of which school savings is a factor, promises to become a subject within a few years in which regular instruction will be given in the public schools of the country.

School authorities have indicated that studies in the lives of delinquents point out that delinquency can frequently be traced to lack of harmony in the home life. There is possibly no other cause that makes so much for social disorder as lack of knowledge of income management in the modern home. If the basic principles of this subject are not taught in the school, where then shall they be taught?

Agricultural Training and Post-School Occupations

Do the boys who have taken the vocational work continue in the field of vocational agricultural work and enter upon the work of the farm after they have finished school? In a recent study reported by the Bureau of Education there were 260 graduates in the vocational agricultural work in the schools reporting. Of these there were three girls. Of the 260 graduates, 132 entered upon the work of the farm. Thirty-five pursued agriculture in some phase at college. In other words, sixty-four per cent of the graduates of these schools actually engaged in some phase of agriculture.

It is believed that of the 14.6 per cent of the graduates who went on to pursue an agricultural course in the institutions of higher learning, all will furnish a higher type of leadership in rural communities in the future. This does not take into consideration the large number of boys who had had some vocational work and had withdrawn from school before graduation and gone into farming, better equipped to meet the real needs of agriculture. It may be worth while to agriculture that the boys who had had the course and had gone on into other lines of work had done so in an intelligent manner.

The Development of Vocational Guidance

Vocational guidance for school pupils has developed in recent years from a haphazard performance into a science, according to the Bureau of Education. With modern knowledge and tests, the counsellor in the school is working toward a condition where "there should be fewer laggards in the schools, and fewer misfits and maladjusted cases in adult life."

Vocational guidance to-day is science, not a haphazard performance. The teacher no longer says, "What do you want to be, Johnnie, when you grow up?" but "What are you best fitted for, John? What are your inclinations; what are your physical and mental qualifications? We will test you along some special lines and find out your aptitudes." When this is done intelligently in the schools, and definite conclusions reached before the pupil is ready for his vocational training, or for college, he will not be found floundering about in a slough of indecision when he reaches the end of his senior year, wondering what he will do to earn his living, and how to go about it.

Vocational counsellors in the schools should be given special training for their work. If pupils are not able to decide for themselves what they want to do, and what they are best qualified to do—and many are not—here is where the vocational counsellor is needed. He should have training not only in vocational psychology and in personnel management, but he should have information concerning the various occupations, and the opportunities afforded in each. He should know about the standardized tests in the different vocations; and he should know these subjects in their bearing to the kind of school in which he is functioning, whether it be elementary, junior or senior high school, college or university, or teacher-training school.

Individuality Offers Opportunities

It would seem that, with the tendency toward individuality in education, and the opportunity given to pupils to work along individual lines (a long step in the right direction in the opinion of experts), there is given a better chance to find out their aptitudes and their capacities for certain kinds of activities.

How to secure vocational guidance specialists is the important question. There can be no doubt that they need special training, as well as fitness for their particular work. If the training schools are doing this adequately, and they are, more and more, the chances are good in the way of supply and demand for experts in this branch of work.

College Vocational and Educational Guidance

A cross-section of what is being accomplished results from a study of questionnaire data dealing with various features of university and college programs

By B. H. VAN OOT, State Department of Education, Richmond, Va.

NINETY-THREE colleges distributed in forty states responded to letters sent out by the State Department of Education of Virginia requesting information concerning their respective programs in educational, vocational, and social guidance. The object of the letter was to secure a cross-section of what is being accomplished in guidance in American colleges and to secure copies of such forms as were used in the administration of the several programs.

Colleges Show Interest

The colleges that responded were, as a general rule, quite generous in supplying detailed information and descriptive literature relative to their programs. Some frankly stated that they had no provisions for guidance or counseling and were not interested, inasmuch as they felt that students who have reached a college level know what they want to do in life and therefore do not need further guidance. Many colleges having what appear to be successful programs and a few that had no programs were intensely interested in the survey that was being made and requested a report of the findings, either to expand or change the programs in operation or to organize a program where none existed.

While it is realized that information secured through correspondence and not checked through personal visitation and consultation is limited in its value, and therefore is an unsafe basis upon which to praise or condemn the efficacy of the programs, yet sufficient ideas have been secured through correspondence to warrant tabulation and exposition in order that all may know what others are doing. These ideas have, for convenience, been classified under fourteen different headings, as follows:

1. *Freshman Week.* The objectives of Freshman Week have been variously stated. To some colleges this is an occasion for all old students and members of the faculty to meet the freshmen, acquaint them with the traditions, educational offerings, material facilities, and to make the freshman feel more "at home" in his new environment. To other colleges this is purely a social gathering, while to others it is a formal occasion where lectures, music, and personal greetings are "enjoyed or otherwise." A few colleges hold Freshman Week prior to the opening of the regular session of college and combine entrance examinations with the guidance features as a stimulant.

2. *Orientation Courses.* Orientation courses seem to be given in two different ways. The dominant prevailing practice is to have members of the faculty lecture to the student body concerning the virtues of their particular specialty. This, it has been said, is a means of "selling" certain courses, curricula, or personalities to the students. One correspondent criticizes this method because, he states, the faculty member presents only the desirable features of his course or curriculum and thus misleads the students. To make guidance effective, he states, the faculty member must present both the desirable and the undesirable features of his course or curriculum, and the advantages and disadvantages of following the curriculum if it leads to a specific vocation.

Included in Curriculum

Orientation courses are also offered as regular courses in a curriculum. These courses are usually given by a specialist whose duty is to instruct students not only in the offerings of the college's several curricula, but to acquaint students with the forces and factors in social development and progress. In these courses the student is lead to realize his peculiar potentialities and to weigh these potentialities in the light of capitalizing them in specific vocations.

3. *Outside Speakers on Vocational Opportunities.* Quite frequently colleges stated that on occasions outside speakers representing the professional, commercial, and industrial vocations are invited to address the student body. These

lectures sometimes are arranged in regular schedules, but more frequently they are provided as the occasion arises. There seems to be some doubt, as well as considerable merit, to this method of acquainting students with vocational opportunities. The talented lecturer, or the personal magnetism of the speaker, may induce some students to aspire to vocations for which they have no special aptitudes or qualifications. On the other hand, a person who has had considerable success in his particular vocation may discourage qualified students through a poor preparation and presentation of the opportunities in the vocation. To the level-headed student who has the ability to judge values and disregard sentiment in making decisions these types of lectures have considerable value.

Guidance by Faculty Advisors

4. *Faculty Advisors.* The most frequently mentioned method of guidance is through a system of faculty advisors. This system is so universally well known that comment seems unnecessary. Problems dealing with personal conduct, selection of courses, social activities, participation in athletics, failures, home contact, finances, and religious activities seem to be the scope of the functions of the faculty advisors. Some colleges make conference with faculty advisors compulsory, others leave it voluntary with the students. Under the voluntary system the great bulk of advising occurs where students get into trouble through misconduct or failures, except, of course, at the opening of the college session when students consult their faculty advisors relative to courses of study and such personal matters as the student may deem wise to discuss.

5. *Special Committees on Educational Advice and Direction.* Closely allied with the system of faculty advisors is the system of student advisors. Under this system committees of upperclassmen are appointed to advise with underclassmen relative to the latters' needs. This usually results in a system of upperclassmen supervising the activities of the underclassmen and it has some distinct advantages. Each is brought into intimate contact with the other. Upperclassmen, zealous for the educational, social, and frequently athletic success of their wards, take an active interest in their wards' activities. Further, it has some compensating results upon the upperclassmen in that it gives them an experience in directing human conduct. When major problems arise the student advisors have the assistance of faculty advisors.

6. *Intelligence Tests.* A few colleges give intelligence and performance tests and certain types of examinations. One correspondent states:

"The examination of the individual includes a mental examination based upon the clinical analysis of college adult test materials in the fundamental abilities and complex mental processes. The specific defects and specific abilities are noted. Performance tests reveal the quantative and qualitative characteristics of intelligence. Informational content and motor control are examined. The emotional factor involves an analysis of the emotional response on the basis of the Brotemarkle Comparison Test. Behavior factors involve a rating of the personal and test responses, and the sociability of the individual. The physical examinations are necessarily carried out by co-operation with the physical education department and medical examiners of the university hospital staff. The specific defects, neurological, psychiatric, or otherwise, are examined by the experts in the varied fields. The vocational problem is analyzed for interest and ability."[1]

Various Tests Used

The tests that are most frequently used in determining student abilities are the Otis S. A.-Higher Examination, The Thurston Test IV, Hotz Algebra Test, Thurston Vocational Guidance Tests, Monroe Reading Tests, Prussey English Composition Tests, Stenquist Mechanical Ability Tests, and the Brotemarkle Comparison Test. These tests are not listed in their order of frequency.

7. *Student Histories.* All of the colleges that reported a program in guidance stated that they gathered facts concerning the history of their students. Some of these were extensive in their ramification, while others gathered only those facts pertinent to the students' previous educational accomplishments. Others asked for recommendations from the principal of the secondary school and still others requested recommendations from "prominent citizens."

In gathering data relative to the history of students some colleges classify the data into types such as educational history, including previous accomplishments, records of admission, and progress in college; medical history, including physical reports with general and specific health problems; social history, including statements of childhood, early adolescence, high-school activities, and college activities; economic history, including the source of income, type of work engaged in, and an analysis of the student economic type as checked by observations of the amount of money spent for various necessities

[1] Robt. A. Brotemarkle, University of Pennsylvania, Philadelphia.

and luxuries; and family history, including a statement of the educational background of the parents, brothers and sisters, the physical ratings and social analysis of the parents as to nationality, health, intellect, moods, and social attitudes, and the analysis of the home, neighborhood, library facilities, family standing in the community, and the analysis of the family income.

Gather Data on Interests, Problems

Some colleges also attempt to gather data that will give the faculty advisor an idea of the student's interests, attitudes, and problems. This information is usually secured on the questionnaire basis and includes questions pertinent to the student's attitude toward his performance in college, his need for financial assistance, his expenses for college and noncollege activities, his fads and hobbies, his ideas of a vocational choice, when and under what circumstances his choice was made, his "outside" work while attending college, and his participation in extracurriculum activities such as music, athletics, debating, dramatics, social interests, religion, literary societies, publications, and student government.

8. *Ratings of Personal Qualities.* Closely allied with student histories is the system of rating personal qualifications of students. This system is operated in several ways. In some colleges the deans, faculty advisors, or individual professors send questionnaires to members of the faculty asking for judgments relative to the student's personality, industry, judgment and common sense, reliability, initiative, ability and willingness to co-operate, native ability, ability to organize, promptness, accuracy, leadership, ability to apply one's self, social qualities, and other characteristics. Some colleges secure the same data through conferences of student advisors, of special committees, or through personal interviews.

The difficulties associated with the system of rating of personal qualities seem to be lack of co-operation on the part of the person who is to furnish the information, snap judgments, carelessness in filling out questionnaires, personal prejudices, personal favoritism, and the influence that gossip about a student's past performance has upon the judgment of the person questioned.

9. *Special Courses Offered.* Only a few colleges offer specific courses in the study of occupations. These courses usually are limited to the professions toward which the college courses lead. Only one college stated that it gave courses that would give the students information concerning the vocations in general. This information, however, may have been included in some of the courses offered in orientation, social development, and citizenship.

10. *Library Facilities.* Special shelves containing books dealing with vocational guidance and occupations are maintained in some college libraries. The use of these books appears to be voluntary on the part of the students, as no college stated that it made the reading of the books compulsory.

11. *Motion Pictures.* Closely allied with library facilities is the circuit of motion pictures that is mentioned by only a small number of colleges. These pictures are secured either directly from the firm whose plant is pictured or through commercial motion picture distributors. Sometimes student organizations are responsible for securing these pictures, and sometimes they are provided by department heads who desire to supplement the ideas presented in some lecture or laboratory experiment. Occasionally they are contracted for by the college as a part of its guidance program.

TABLE I—SHOWING EXTENT OF EACH TYPE OF GUIDANCE MENTIONED IN THE ACCOMPANYING ARTICLE

Type of Guidance	*Number of Times Each Type Was Mentioned*
1. Holds Freshman Week	10
2. Orientation Courses	16
3. Outside Speakers on Vocational Opportunities.	11
4. Faculty Advisors	26
5. Special Committees on Educational Advice and Direction	4
6. Intelligence Tests	10
7. Student Histories	25
8. Ratings of Personal Qualities	19
9. Special Courses Offered	13
10. Library Facilities	29
11. Motion Pictures	2
12. Employment and Placement Bureaus	39
13. Tryout Courses	2
14. Vacation Employment	1

Positive and Negative Guidance

12. *Employment and Placement Bureaus.* Some type of employment or placement bureau is maintained by nearly all the colleges responding to the letter. Occasionally there is a vocational counsellor attached to this office whose duties seem to include many of the above-men-

tioned functions, but whose chief responsibility is to place applicants for positions. This, in a measure, includes some guidance, especially when the employment office weighs personal qualifications against job requirements. It appears to be both positive and negative guidance; positive in the sense that students possessing certain qualifications are induced to accept a vocation about which they have given no particular consideration; negative in the sense that students of certain qualifications are discouraged from aspiring to positions for which the counsellor believes them to be unsuited. The efficacy of such a system appears to depend upon the qualifications of the personnel officer and the thoroughness he exercises in determining student qualifications and potentialities.

13. *Tryout Courses.* A few colleges operating part-time employment departments wherein the students work part-time and attend college part-time seem to be satisfied with the results they are obtaining. Under this system a placement, follow-up, and guidance officer acts as a co-ordinator or liaison officer between the student and the place of employment on the one hand and the college and faculty on the other. The student is closely observed both in his studies and during periods of employment. The results of these observations form a basis for diagnosing cases and permits adjustments to be made, both in employment and curricula.

An Ally of Tryout Courses

14. *Vacation Employment.* Closely allied with tryout courses is the system of summer employment practiced by a few colleges. Faculty members and personnel officers of the colleges set up machinery whereby students specializing in certain branches are offered opportunities to work during vacation periods, thus learning something about the requirements of the vocation for which they are preparing to enter. A few engineering schools maintain summer engineering camps serving practically the same purpose.

Only in rare instances does the literature show that colleges are maintaining anything that even approaches a complete system of guidance. However, the purpose of this paper is not to show what colleges ought to do, but rather to enumerate the things some colleges are doing in the guidance of their students. The literature shows that the main emphasis is being placed on giving students information and personal advice so that they may have a basis upon which to make an intelligent choice of a vocation, based upon a thorough knowledge of their abilities and potentialities.

The Place of the Junior College in American Education

The junior college belongs to the period of secondary education and should represent an economy of time and effort by opening more mature opportunity to pupils at an earlier period than under the traditional organization, according to Dr. Charles H. Judd, director of the School of Education, University of Chicago.

"Up to the present time, the junior college has been thought of as a part of the traditional educational system of America. It has been regarded merely as a transplanted freshman and sophomore year. The transplanting has consisted in detaching the two years in question from the last two years of college. Sometimes the junior college has stood as a separate institution, sometimes as a relatively unassimilated part of a public-school system," he states.

"In view of the conservative attitude of educators, the curriculum of the junior college has been very commonly dictated by the conventional practices of colleges, all the courses offered being duplicates, so far as possible, of those given in neighboring four-year institutions.

"The time has arrived for a frank recognition of the fact that the whole American educational program is in process of reconstruction. The work of the lower schools has been so much improved that pupils are ready for mature advanced studies long before the end of the eighth school year. In like fashion, pupils who were formerly thought of as immature adolescents are ready for courses that formerly belonged in the college.

"Economy of time, as thus defined, does not in any way curtail the opportunity of individuals but opens the opportunities at an earlier period in the individual's life. Economy of time thus means earlier entrance on advanced stages of study."

A typical health education program involves yearly physical examinations by a doctor or nurse, regular weighing and measuring, daily checking of the observance of health habits, direct health instruction, health projects and visualization, and the correlation of health with the curriculum. Such a program has these objectives: To reach into every home, thus enlisting the interest of every child in the cause of health and demonstrating to each family group through the children the method of achieving health; to develop habits that give a basis for constructive use of leisure time; and to offer activities necessary to the development of normal, robust, and organically sound bodies.

Purchasing and Distributing Supplies and Equipment

Making each school a distinct unit with an individual budget and giving the principal full control of purchasing have effected considerable economy in one school system

By M. S. SPEARS, Business Manager, Evansville Public Schools, Evansville, Ind.

IN RECENT years one of the most discussed problems in school business administration has been the purchasing and distributing of supplies and equipment. School magazines have given considerable space to budgetary procedure and stores control. We, in the business department of the Evansville schools, believe we have one of the best methods of handling supplies in the country. It is unique, in that first, the principal is given full control of the purchasing for his school, and second, any principal effecting a saving is directly benefited by it. As in most city schools our purchasing is done annually on a bid basis. However, any school that is financially able may make miscellaneous purchases at any time. It is the purpose of this article to point out how our system differs from those used in other cities.

Central Storeroom Inefficient

Practically all school systems of any size have a central storeroom. All goods purchased are sent to this central store, or in large systems to substores, and the various schools get what they need by requisitioning. It has been my observation that this system, although universally used, is not efficient. This conclusion is based on the following facts:

1. In a large system it is necessary to carry a large inventory and much money is tied up in "dead stock." Supply lists change and much material on the shelves is never called for.

2. The most careful control from a central office cannot guarantee the elimination of waste in the various schools. Reports made of the amounts and quantities of commodities used by the different schools of a city and submitted to the various principals arouse only a passing interest. As long as there is no real incentive for economy the principals and teachers of a building do not worry about the cost.

3. The maintenance of a central storeroom and the handling and rehandling of supplies and equipment cause decidedly unnecessary expense.

4. Under the central storeroom plan schools usually order more than they need. This causes a trimming of requisitions by the supply department. A situation of this kind results in the business department and the various schools working against one another's best interest.

5. Unless a large inventory is carried by the supply department prompt and efficient service is not always possible.

The Evansville Plan

In view of the above conditions we have departed from the conventional system of purchasing and distributing supplies and have adopted one that not only promotes economy by supplying each school with a real incentive for saving, but also one that makes it possible for the business department to render prompt and efficient service. The outline of our plan is as follows:

1. Each school is equipped with an individual storeroom large enough to hold its year's supply of everything needed. We have no central storeroom at all.

2. We do our buying early—in March or April—and everything for the next year is delivered to the individual school storerooms before school is out in June. For instance, when our regular ten months' term ended in June, 1928, all buildings had in their storerooms the supplies and small equipment for the school year, September, 1928, to June, 1929. When school opens in September teachers, supervisors, and janitors find practically everything that is needed for the ensuing year.

3. Before we do our buying, there are sent to each principal early in January, standard lists of supplies and equipment for all departments. These lists are revised each year and are kept up-to-date by departmental supervisors, principals, and teachers. Each principal, with the aid of his teachers, and head janitor, makes up his annual order from these lists. Teachers and

janitors, from past experience, are able to determine to a fairly accurate degree what instructional material and equipment they will need for the coming year.

4. The outstanding point of merit in our system is that each school is placed on a strict budget basis, and the principal of each school held responsible for his budget. Before the schools make out their annual requisitions they are allotted certain amounts of money. Of course, they do not actually get this money, but it serves as a drawing account and every school knows that its expenditures for the year cannot go over that amount.

Items in Principals' Budget

The principals' budget for 1928-1929 calls for an expenditure of $22,000 for the high schools, and an expenditure of $34,100 for the elementary schools as shown in Table I. Besides the minimum amounts set aside in the beginning, it allows a per capita of $4.00 in the high schools, and of $2.00 in the elementary schools. Any expenditure for any of the following items will come out of the principals' budget: (1) Instructional supplies; (2) janitors' and engineers' supplies; (3) supervisors' supplies; (4) repair and replacement of instructional apparatus; (5) repair and replacement of furniture; (6) repair and replacement of other equipment; (7) books and repairs; (8) additional furniture; and (9) additional instructional apparatus.

It is our intention to keep each school supplied with pupils' desks. Whenever it is necessary to put in a new room of desks or replace broken desks, this expense does not come out of the budget. However, we reserve the right to decide whether or not such additions or changes are necessary. Often teachers desire tables or new desks in their rooms, when we feel that they are not absolutely necessary. This expense will come out of the budget. We feel that there is sufficient money in the budget to take care of replacements of teachers' desks and small equipment whenever it is necessary for the principal to make this replacement. Each principal should look into the future far enough to determine expenditures for replacements during the year, and provide for same before completely exhausting his budget for the year.

Freedom Allowed Principal

5. All of our standard supply lists carry approximate prices so that each principal can adjust his expenditures to his budget. The principals are not limited to these standard lists. If they have sufficient money in their budgets after ordering necessities for the year, they may buy anything that their schools need. Each principal carries a safe amount in his budget for emer-

TABLE I—THE PRINCIPALS' BUDGET FOR 1928-1929.

	Enrollment	*Minimum Set Aside*	*Open Air Schools*	*Per Capita Quotas*	*Totals*
Central High	1,700	$ 2,000	.....	$ 6,800	$ 8,800
Reitz High	650	2,000	.....	2,600	4,600
Bosse High	850	2,000	.....	3,400	5,400
Douglass High	300	2,000	.....	1,200	3,200
Baker	775	500	$300	1,550	2,350
Bosse Elementary	400	500	.....	800	1,300
Campbell	800	500	.....	1,600	2,100
Carpenter	500	500	300	1,000	1,800
Centennial	1,100	500	300	2,200	3,000
Chestnut	600	500	300	1,200	2,000
Columbia	700	500	300	1,400	2,200
Daniel Wertz	475	500	.....	950	1,450
Delaware	750	500	300	1,500	2,300
Emma Roach	450	500	300	900	1,700
Fulton	875	500	300	1,750	2,550
Henry Reis	525	500	300	1,050	1,850
Howard Roosa	800	500	300	1,600	2,400
Stanley Hall	775	500	300	1,550	2,350
Wheeler	475	500	300	950	1,750
Governor and Oakdale	675	500	300	1,350	2,150
Third Avenue	175	500	.....	350	850
Totals	14,350	$16,500	$3,900	$35,700	$56,100

gencies that may arise during the school year.

6. When each school has completed its annual requisition it sends it to the business office. We tabulate the requisitions and know, of course, the exact number of cases of paper towels to order; the exact number of floor brushes; the exact number of packages of cutting paper; etc. We buy nothing by guess work. Everything bought is for some particular school, and we know that that school is going to use it to advantage. We have done away with a central storeroom because there is no need for one. When we do our purchasing all miscellaneous supplies and equipment are marked by the vendor for the different schools so that when they arrive they can be sent directly to the storerooms. Under this system we get the advantage of quantity prices and at the same time put as much of the detail work on the vendor as is possible. The local firms from whom we buy deliver everything directly to the schools.

We think that our system places the control of supplies exactly where it must be to get results, and that is, in the individual schools. It also makes this control mean something because economy on the part of principal, teachers, and janitors results in definite and worthwhile advantages to that school. Each principal knows the amount of money available for his school and is naturally placed in a position where he has to know not only what is being ordered but also what becomes of everything. Articles, such as chalk, paper, ink, scissors, paper towels, etc., that are often carelessly used, are now carefully watched and controlled, because the principal and his teachers know that any saving effected will mean just that much more money left in the budget for things that the school desires.

System Eliminates Waste

Before this system went into effect here, some of the schools used from two to four times as much of certain articles as was being used in other schools. These discrepancies were evident but seemed to be beyond control. Any pointing out of waste was always met with the argument that "conditions were different in that school," and that there was really no way of taking care of the situation. However, when it was proved that any saving made directly benefited the school, these discrepancies began to take care of themselves. We are beginning to see that schools of about the same size are striking an average in the quantity and amounts of various supplies used. The principals are seeing to it that nothing is being wasted and are finding out just how much of everything their schools should use.

For instance, we will say that a school has $3,000 in its yearly budget. That school has been in the habit of using $1,800 worth of staple supplies. This would leave the school $1,200 to take care of miscellaneous items and various emergencies that might arise during the school year. If the principal of that school can effect a twenty per cent saving in the use of these supplies he will have $360 more to apply on the purchase of something desirable for the school. It is surprising to notice the real saving that may be made when a worthy incentive for saving is once supplied.

Results of Two Years' Experience

The following worthwhile results have grown out of two years' experience with our system of purchasing and distributing supplies:

1. An accurate cost system for each school.
2. A definite economy by doing away with the central storeroom.
3. A definite means of comparing amounts and quantities of equipment and supplies used in the different schools.
4. The reduction of inventories to a minimum.
5. A plan that gives schools what they want, when they want it.
6. A means whereby a principal can, by carefully following his budget, secure those things that his school particularly needs.

The matter of school accounting is made simple and accurate. We carry a disbursement ledger by schools and can at any time tell any principal how much he has left in his budget. Because every purchase is made for some particular school, all claims can easily be divided by schools and entered in the disbursement ledger.

Each month we send to every school an itemized statement of its expenditures for the preceding month. This statement shows every purchase, where it was made, and gives the price. This enables the principal to determine at a glance where his money is going and how much he has left. The first year we used the budget plan only one school out of twenty-one exhausted its allotment before the end of the year. The operation of the budget is an important piece of business with each principal and they all try to regulate their expenditures for the best interest of their schools.

According to a statement made public recently, the general director of the school-health study of the American Child Health Association reports that of seventy representative cities in which that association is now conducting a special study only seven employ no school physician, and only three have no school nurses.

Steps in Equalizing Educational Opportunities

There is one step in equalizing educational opportunities for all school children that is possible of realization. That is to place within the reach of every child no matter where he attends school, not only the best textbooks available, but also other reading materials that are profitable and interesting to him. The library law enacted by the last general assembly of the Iowa legislature is a step in this direction that should lead to more adequate provisions for an abundance of enriched reading experiences for our school children. It is essential in any program of equalization of educational opportunities that every child have easy access to abundant reading material for work and recreational purposes of school and life outside the school.

Good Course of Study Essential

Another essential is related to the course of study. If the high-school tuition law guaranteeing free high-school privileges to the country children is to work out with impartiality for all, if every rural eighth-grade graduate is to be given an equal chance in winning the coveted eighth-grade diploma and high-school tuition certificate, there should be in the hands of the country teacher and the county superintendent a good, usable course of study setting forth the standards of attainment for each grade, in short, a state course of study. This is a real magna charta need of to-day in equalizing educational opportunities without changing the status of organization of districts. Such a course of study is now being prepared by the Iowa Department of Public Instruction to supply the needs of 25,000 teachers and 334,788 elementary-school children of that state. The active assistance of one hundred educators has been drafted for this service, and the indications are that they have produced a course of study better than any yet in print. It is to be the theme of study for every teachers institute in Iowa during the first week of September.

A Definite Tool

These institutes are called at that time not only in the interests of efficiency, but also for economy's sake. The institute should be a definite tool in the supervisory program of the county, not a shopping excursion, a vacation on pay, a high-class vaudeville, or lyceum performance. Teachers should participate in the meeting and work out minimum essentials in the various subjects. There should be a definite theme for the program. It is hoped to try out a plan making the institute function as a definite part of the educational program of the county and to introduce the new course of study at the opening of the school year so all schools may have the benefit of it early. Furthermore, this will eliminate all vacations for institute purposes after school is really started this fall, an advantage that is highly recommended.

Still another essential in this program of approaching equal educational advantages is an up-to-date, enriched course of study setting forth standards of achievement for each elementary grade.

Three Vital Needs

These ABC essentials as expressed in three crucial and vital needs for every school child—a sanitary and wholesome schoolroom, an adequate supply of desirable reading materials, and an enriched curriculum—need the inspiration and leadership of a trained and devoted teacher in order to make them function properly. The good teacher is the Alpha and Omega of all equalization programs. It is a great privilege to think and work out the big achievements that the present age praises. As has been said by F. Louise Nardin, Dean of Women, University of Wisconsin, if one of us had a factory making a fabulous number of tops a day, and owned such a big business that every weekly magazine carried a two-page picture showing a boy spinning one of our tops under the shadow of a black tent in an Eastern desert, and the next week showed an Eskimo beaming at a twin brother of the Arab's top, we should recognize an achievement. Not tops, but spinners of tops and fliers of kites and aeroplanes are our product, a product that should approach perfection when it leaves our hands.

The Opportunity of Guidance

Though we never invent a tool, we are helping to launch young imaginations into the fruitful current of this scientific and inventive age. It is a great thing to add a machine or a scientific law or a poem or a prayer to that body of knowledge and faith by which man's hungers of body and soul are fed. It is no small thing to be the guide by whom another generation is led into these ampler halls of man's spirit. We are not merchants and explorers, but we are the merchants by whose hands the things we call civilization—what Phideas carved and Socrates died for—come to be the possessions of young hearts. In our booths they outfit the caravans for a never ending journey.—*Agnes Samuelson, superintendent of public instruction, Iowa.*

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Editorials

Do Not Permit Pupils to Fail

CHOOSE at random one hundred pupils of any age and set them all at a task that will test their confidence, persistence, and endurance. It will be found that some of the pupils will abandon the task easily, saying that they cannot perform it, while others will keep at it a long time in the effort to overcome difficulties, no matter how hard they may seem to be or how much persistence is necessary in order to succeed. There may be about ten of the number who will not give up at all; they will have confidence that if they keep at the task they can find a way to surmount the obstacles that lie in their path. There may be a few of the number who will scarcely attempt the task; they will experience defeat as soon as they begin. Most of the pupils will be ranged between the extremes—those at one end who have very little confidence, persistence, or endurance, and those at the other end who believe that they are capable of winning out in almost any situation in which they may be placed.

Attitude of Defeat or Victory

Why is there such a wide difference among these pupils? Those who quickly give up have got into the habit of giving up when they confront difficulties. They have what the psychologist calls the attitude of defeat. In the past they have easily given up when they have found barriers in their path, until now they have no confidence in their ability to overcome difficulties. There is a voice within each one that keeps saying—"You cannot succeed; you will fail. So what's the use of trying? You may as well give up now as to keep on struggling." And they have listened to and obeyed this voice of defeat so often that it has gained complete mastery over them.

Why do some of the pupils persevere in their efforts to succeed in overcoming difficulties? Because they have persisted in the past and they have as a rule succeeded, and they believe now that if they keep at a task they can find a way to perform it. There is a voice within each one that keeps saying—"Don't give up. You have always had success when you continued long enough, and you can succeed now. Don't let this thing bully you. Show that you can master it." They have listened to and obeyed this voice so frequently in the past that now it is the driving force in their lives. This is why they are usually successful and

why they have confidence that they can succeed in any task that is within the range of ability of any one of their age and experience.

Human nature is so constructed that what one has done determines what he can do. If he has been succeeding he will continue to succeed. If he has been failing he will continue to fail. If he has been overwhelmed by difficulties he will come to expect that he will always be overwhelmed by them, but if he has surmounted them he will come to expect that he can always surmount them. In the case of one who has succeeded and possesses the feeling that he can continue to succeed, everything in him works to his advantage in surmounting difficulties. There is no friction, no lost motion, no wasted energy, no fear that he will fail. He can attack a problem with far greater drive or momentum and with far less waste of energy than if he had become addicted to failure.

The Dread of Failure Devitalizes

The individual who has become afflicted with a dread of failure becomes devitalized, incapacitated, and there is wasteful friction in his mental machinery which must run smoothly in order to accomplish the tasks confronting him. He has but little momentum or drive. He is flabby, inert, ineffective.

A pupil working in any field in which he is failing ought to be stopped by his teacher unless he can be got speedily into a more confident and successful attitude toward his tasks. Every time he fails he grows weaker and the habit of failure may fasten itself upon him. His body, his intellect, his emotions become shaped by defeat, if failure is constantly repeated.

If a pupil has been failing but can be roused to mobilize his mental resources and win out once, he stands a chance of supplanting the feeling of defeatism by the feeling of success. Of course, a teacher familiar with human nature would not allow a pupil to begin a program in which very likely he would be a failure. A pupil should not attempt tasks that are beyond his ability or strength. But when he attacks any problem that he should be able to solve, he must stay with it until he solves it. He must never be conquered by a problem.

Pupils often get into the habit of failure in recitations or in laboratory work. When they are invited to participate in the work that is going on, the voice of defeat that is within them says—"You cannot answer the question; you cannot take a part in the debate; they will laugh at you if you try it. You had better say that you don't know or that you are not prepared."

To repeat: Every time one listens to this voice of defeat within him he becomes more and more its victim until it gains complete control over him; and then he certainly will fail as a matter of habit.

Take this case: A pupil has an assignment to present a paper or a talk before a class. When the time arrives for his performance the voice within him keeps calling out to him—"You can't do it; you will probably break down if you try it. Better not make the attempt."

What ought a pupil do when this paralyzing voice tries to prevent one from doing what others can do, and what he could do himself if he would employ all his resources and get rid of friction and undue inhibitions? He should say to himself—"I can do as well as anybody else. I will try it anyway. I will go ahead." What is required in order to overcome the feeling and expectancy of defeat is to go ahead and do the best possible with the task in hand. To-morrow it will be easier than it is to-day, and the next day it will be easier still, until in the end it will be possible to drive forward at a task until it is mastered.

Pupils who succeed are always stronger physically and intellectually and more happy and contented than pupils who habitually fail. One cannot be a failure without feeling more or less depressed. It is unwholesome for one to be conquered. Nature penalizes a victim of habitual failure because she aims to have people be successful. Nature does not like the defeated type of individual, and she misses no opportunity to punish him.

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Train for Resourcefulness and Self-Reliance

RESOURCEFULNESS and self-reliance are referred to very much more frequently in educational literature and discussion in our country than in any foreign country. Here in America, we would like to train our pupils so that they could think and act independently, and so that they could be self-helpful in solving the problems of daily life. In other countries teachers think more highly than we do of faithfulness in learning and accuracy in reproducing what has been memorized. Although there is some difference of opinion among us as to what is meant by the terms "Originality" and "Self-Reliance," still they denote the chief objectives in American education to-day, if one may judge by the frequency and ardor with which they are mentioned by teachers in their discussions of the aims of educational work.

Some persons think that originality, resourcefulness, and self-reliance are inherited powers and that all we can do to strengthen these traits

is to provide opportunities for their expression. According to this view there are some children who never can become original or self-reliant, no matter how or where or by whom they are trained.

Observation was recently made of the work in a school that has achieved marked success in developing originality, resourcefulness, and self-reliance in its pupils. These pupils are typical; they are not selected because they have inherited originality in an exceptional degree. But most of them show originality and initiative in their work in larger measure than is the case with pupils in many schools with which we are all familiar. How do they gain their originality? Mainly because they are taught from the beginning in all their classes so that they have experience every day in solving new problems by using what they have already learned instead of simply memorizing rules and applying them to textbook examples. Every teacher in this school believes that it is possible so to guide pupils that they will become resourceful and self-reliant in mastering the situations in which they are placed.

In arithmetic, for instance, pupils are not told either by the textbook or by the teacher just how to solve new problems; when necessary they are given suggestions that assist them to recall what they know that is related to the problems they must solve, and they are stimulated to use this recalled experience to gain mastery over the problems they are attacking. From the start they are encouraged to think they can surmount obstacles. By the time they reach the fifth or sixth grade they become aggressive in dealing with new situations, since behind them are years of success in solving problems largely, though not wholly, on their own initiative. Every year as they progress through the school they gain greater power in using experience to overcome difficulties, either in thought or in execution.

Acquire Facility With Practice

The development of originality and self-reliance is not fundamentally different in principle from the development of any other type of mental activity. If a pupil begins in the primary grade and goes through all the grades memorizing rules verbatim and then applying them to textbook problems he will gain facility in this process. In the same way, if he be guided from the primary grade onward to sum up what he has learned that relates to any new situation and endeavor to use it in solving the problems that he confronts, he will normally, by the time he completes the eighth grade, have acquired facility in original, self-reliant thinking and execution. He will have gained confidence that he can master tasks that require initiative and independence because back of him are years of success in this type of work.

Further, he will have experienced the delight of mastering new difficulties, and he will feel impelled to continue to solve problems for the pleasure of conquest. There is a satisfaction in memorizing rules so that they can be repeated accurately and applied expeditiously to textbook problems; but this satisfaction is never so keen and so stimulating as that which is derived from working one's way unaided through unsolved problems. In other words, originality, initiative, self-reliance in the performance of tasks yield greater pleasure and greater inspiration for renewed effort than faithfulness in memory or accuracy in reproduction and application.

Using What Has Already Been Learned

Surely no reader will make the mistake of thinking that originality and self-reliance can be developed without faithfulness in memory and accuracy in application of what is learned. Originality is the complement of faithfulness in memory and not its opposite. Self-reliance never could be attained without accurate memory. Originality and self-reliance depend upon the *use of what has been learned.* If a pupil has learned but little, and has not learned even that little accurately, he cannot develop originality or self-reliance, for the reason that he has nothing back of him to use in overcoming new obstacles. A pupil ought to be original and self-reliant as he goes on in his arithmetic, say, but he cannot be unless he has mastered the more or less mechanical early work. So he ought by the second, or at least by the third, grade to become self-helpful in making out new words as to their pronunciation and meaning, but he cannot do this unless he has been trained accurately in more or less mechanical and routine matters during his first year. The two attitudes are complementary. What is to be memorized should be memorized accurately and reproduced readily.

But whenever a situation arises in which what has been learned can be used the teacher ought to guide the pupil by a question or a suggestion so that he will become aggressive in using it and not simply depend upon a rule or the teacher to do his thinking for him. Every day the pupil should become more independent and resourceful, because he should have more usable experience to draw upon with which to diagnose new situations, and also because every time he solves a problem by his own efforts he should gain renewed confidence in his power to solve other problems as he meets them. Self-reliance de-

pends largely upon a feeling of confidence in one's ability to cope with new situations, and this feeling can arise only from a long series of successful contests with new problems.

There is no general faculty of originality or self-reliance that can be developed for all situations by some special training. A woman would not become resourceful in solving problems in her household in respect to keeping it clean and sanitary, making it attractive, developing a homelike atmosphere, and so on, simply by being trained to be original in dealing with arithmetical, or geometrical, or grammatical problems. She might feel very confident about being able to work out any new problem in physics, but have no confidence whatever in her ability to treat a child so that he would not throw himself on the floor in a tantrum whenever he could not secure what he wished.

Training Must Not Be Limited

One will be original, independent, self-reliant, and aggressive in maturity only in the fields in which he has been original, independent, self-reliant, and aggressive during childhood and youth. This requires that we should train pupils to be original and self-reliant, so far as we are able to do so, in respect to all the types of situations in which they ought to be original and self-reliant in maturity, and not limit our training to a few formal branches of instruction in the belief that original power developed in one field can be used equally well in all fields.

N·S

Which Is Safer for Youth, Home or College?

A PARENT writes in to the editor to say that he thinks young people ought not to go away from home to college until they have reached their nineteenth or twentieth year. He goes on at some length to express his view that the best place for a boy or girl in the teens is at home in these perilous times when temptation is put in the way of every young person. He cites instances of what he calls moral disintegration on the part of both boys and girls who have left home at the age of seventeen or eighteen to enroll as freshmen in large universities; and he says that such cases should serve as warning to all parents.

A well-known woman writer was employed last year by a popular magazine to go about the country and investigate the conduct of high-school boys and girls. She spent several months in pursuit of concrete data relating to the goings-on of young people of secondary-school age. The results of her investigation were published recently, and she cites numerous instances of misbehavior of high-school children which she says she observed with her own eyes, and she tells of numerous other cases that were described to her by parents, teachers, and citizens. It is probable that if one should search for them, he could find as many examples of erring youth in high schools as in colleges and universities.

We are entering, if we are not already in, an era when young people will discard some of the conventions—they speak of them as conventions—that have heretofore held youth in restraint. In a recent address to the parents of New York City, Justice McAdoo of the Municipal Court stated that most of the offenders who pass through his court are in the teens, and they frankly declare that they have no respect for the traditional restraints and restrictions imposed upon youth. They intend to do anything they want to do if they can get by with it; apparently some of them have not been able to get by in safety. The point is that the young are taking the reins in their own hands and defying control from sources of authority that have been recognized heretofore as final and entitled to respect.

Erroneous Picture of College Campus

There is a widespread belief, fostered during the past decade by flaming motion pictures, that the typical college campus is a kind of Sodom and Gomorrah. There are signs now that people are recovering from this illusion; and it certainly is an illusion. Serious work is going forward on the typical college or university campus throughout the country. There cannot be very much revelry or dissipation, although on special occasions, as at Homecoming, restraint is released; but even on such occasions, only a small minority of the student body in a large institution gets drunk or participates in any other type of vicious indulgence.

A college campus is a safer place for most youths in the later teens than is the street, or the ballroom, or the motion picture theatre in the city. To some extent the college campus is set apart from the city. It develops its own interests and activities. The typical college student is lured by his friendships and his college interests away from the temptations of the city streets and pleasure resorts.

The typical home in America to-day is not having much success in detaining boys and girls in the teens from indulgences that heretofore have not been thought to be appropriate for youth. We may as well acknowledge that parents do not have the authority in guiding the conduct of boys and

girls in the teens, or at least they are not exercising the authority, if they still retain it, as they did twenty years ago. Control now is exercised rather by group sentiment than by parental command or exhortation. 'Tis too bad 'tis true, but it is true, and we have to take account of it in advising young people whether they should go away from home to college, or whether they should stay at home until they have completed the teens.

Organizations Protect Students

The parent referred to at the outset of this editorial believes the gay life on the typical college campus has no metes or bounds. He is entirely wrong in this view. There is probably not a reputable institution of collegiate or university rank in this country in which the student body is not highly organized for the purpose of protecting students from the seductions of the world. The avowed purpose of student organizations may not be to safeguard students from temptation, but they actually operate to hold the attention and direct the activities of students in wholesome channels.

There is so much activity of an intellectual, athletic, social, and esthetic character taking place on the typical college or university campus to-day that students have all their time occupied with interests that divert them from the type of conduct that is encouraged by the roadhouse, the dance hall, and other flourishing institutions of seduction to which children in the city are exposed. Many of the colleges and universities are prohibiting the use of automobiles now by students; but what proportion of American homes is able to deny boys and girls in the teens the use of automobiles for indulgent purposes?

College Has Better Influence

No reader will imagine that it is being claimed that there is no riotous living on college or university campuses to-day. It would be foolish to assert that all college students are devoted to intellectual, athletic, social, or esthetic pursuits, but it is within bounds to say that student bodies as a whole are less inclined to give way to elemental impulses than are young people who are affected more by the atmosphere of city life than by the atmosphere of a campus. The typical boy or girl in the later teens would have his interests diverted more from self-indulgence by leaving home for a college or university in which there is a wealth of activity of an upbuilding character than to remain at home where he is subject to appeals from institutions organized and maintained to seduce him.

A New Conception of Culture Is Developing

FORMERLY one was thought to be cultured when he had learned classical languages, pure mathematics, and formal history and literature. A cultural education meant an education that emphasized symbols and abstractions. This type of an education did not seek to train an individual to be dynamic or useful or aggressive in solving problems. It made him receptive and static. It was designed to equip him with learning but not with skill or ability or self-reliance. In America we are rapidly abandoning this view of culture. America is leading the world in putting into effect the conception that culture denotes the degree to which an individual can adjust himself harmoniously and effectively to his physical and social environments.

A static individual, though possessed of great *learning* merely but who does not understand the world of people and things in which he lives, who cannot live in peace and harmony among men, who will not play the game of life fair and out in the open, who is incompetent in solving actual physical and mental problems arising in his daily life, cannot be regarded as a cultured person.

The conception of culture that is coming rapidly to dominate our educational work, both in the choice of materials of instruction and in the methods of teaching, is a *dynamic* conception; and it appraises household arts, agriculture, manual activities, and the like just as highly and for many persons more highly than ancient history or Greek or English grammar or algebra or any other subject that in the past has been thought to be peculiarly valuable for and essential in cultural training.

N·S

On Second Thought

IN The NATION'S SCHOOLS for May there was a review of Prof. Carl J. Holzinger's *Statistical Methods for Students in Education.* It was stated in the review that the book was not well adapted for use by teachers in service who had not had training in statistical methods. The author has called attention to the fact that his book was prepared for students in education and not for novices. It is not expected that one who is unacquainted with statistical work, and especially who has not had extended training in mathematics, could take this book and work through it understandingly by himself. The book is a valuable one, however, and those who can study it under the leadership of a competent educational statistician will get real value from it.

Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

This department will be devoted to an informal discussion of problems arising in the every day life of principals and superintendents. The following are excerpts from letters that have been received recently by the director of this department. Similar inquiries are invited, and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.

A Problem in the Mathematics Course of Study for the Junior High School

The organization of the school system here in a city of some twenty-five thousand has recently been changed from the 8-4 plan to the 6-3-3 plan. Many administrative changes are necessary due to the recent completion of two new junior high schools. If the introduction of the new organization is to be of real educational value, fundamental changes must be made in the curriculum of grades seven, eight, and nine at least. As a means of effecting these curriculum changes, the teaching staff has been organized into various curriculum committees and several of these committee reports have been submitted.

The committee on junior high-school mathematics has not made its report because it seems unable to reach any complete agreement concerning just what material should be included, and there is also some disagreement over the placement of topics that it is agreed should be offered. For example, some of the committee wish to offer demonstrative geometry in the ninth grade, while about an equal number insist on straight algebra. An examination of about a dozen textbooks, some of which have been written supposedly for the junior high school especially, and a study of some twenty courses of study indicate no basic course. Consequently, I am writing you to ask if you can give me any information about what the course of study in junior high-school mathematics should include.

The problem that is presented above is one to which no hard and fast answer can be given. From the number of inquiries similar to this one that are being received, it is evident that the problem is widespread. The following summary of a study concerning the offerings of the course of study in mathematics in the junior high schools of a group of selected cities may be of some help. While practice is by no means an infallible criterion, what other people are doing indicates at least in which direction the wind is blowing.

The purpose of this study was to determine—in the light of certain very definite criteria—just what junior high schools were teaching in mathematics. Data were collected and seventy courses of study were analyzed. From this investigation, a course of study was evolved for use in the junior high school, containing the most generally accepted topics, a list of which is found at the end of this summary. The course of study in mathematics should contain two types of material: First, carefully formulated specifications, which include objectives, both general and specific, organization of topics, and time allotments; and second, directions relative to instruction, which include suggestions as to learning exercises and methods of teaching.

Still in Formulative Process

This study reveals that mathematics in the junior high school is still in the formulative process. Neither its purpose, its content, nor its methods can be regarded as settled. The apparent uncertainty and dissatisfaction of existing courses are revealed by the fact that fifty-one per cent of the courses of study examined were issued within 1926-27, and that twenty of the seventy cities are in the process of revising their courses of study at the present time.

It is apparent that "The Aims of the Junior High-School Mathematical Instruction," as set down by the National Council of Mathematics has exerted a great influence in the planning of the various courses of study. "The primary purposes of the teaching of mathematics should be to develop those powers of understanding and of analyzing relations of quantity and of space that are necessary to an insight into and control over

our environment and to the appreciation of the progress of civilization in its various aspects, and to develop those habits of thought and action that will make these powers effective in the life of the individual."

In the consideration of the aims listed by the courses, those that appear most frequently are:

1. Practical.
   To give knowledge essential for life.
2. Disciplinary.
   To develop functional thinking.
   To develop proper mental habits and attitudes.
3. Cultural.
   To develop appreciation.
   To inculcate democratic spirit.
   To awaken spirit of social service.
4. Exploratory.
   To develop interest in the subject.

In consideration of the content of the courses, the items occurring with marked frequency are: Statement of objectives, teaching outline, methods of teaching, suggestions for the use of supplies and texts. The items having low frequency are: Discussion of teaching methods, provisions for individual differences, diagnostic and remedial measures, methods of measurement, references, items of mechanical make-up.

Conclusions

In consideration of the general agreement or uniformity and grade placement, it was found that:

1. Arithmetic, algebra, intuitive geometry, simple trigonometric facts, commercial arithmetic, and demonstrative geometry comprise the mathematics taught in the junior high school. Of these, arithmetic and algebra are the chief subjects.

2. Arithmetic appears more often than any other subject in the seventh and eighth grades; and in the ninth grade in the form of commercial arithmetic. This arithmetic is taking a decidedly practical form, including much work on such topics as investments, budgets, savings accounts, etc. An informal approach to algebra through the formula is also being made.

3. Algebra appears in the ninth grade in both semesters in ninety-five per cent of the courses.

4. Intuitive geometry appears in the seventh and eighth grades in approximately sixty-five per cent of the courses.

5. Demonstrative geometry appears in one semester of the ninth grade in ten per cent of the courses.

6. As to the order of presenting topics in the three grades there is a wide variation of sequence.

The ninth year presents a difficult problem in making a junior high-school mathematics course because some of the colleges and universities do not recognize the work of the junior high school and consequently pupils are penalized one year in their preparation for college. It is very evident that something should be done concerning the crediting of junior high-school work. If on the basis of quantitative evidence, work done in a junior high school is equivalent to work done in the ninth grade of a school organized on the eight-four plan, then the junior high-school work should certainly suffer no penalty. An effort has been made to reorganize and revise the courses of study in junior high-school mathematics to meet the practical needs of the pupils and at the same time retain the formal mathematics that is desirable. This work should be extended and the courses in the senior high school should continue the adaptation of the mathematics curriculum to modern needs of all kinds.

Some Problems With Teachers' Salaries and a Salary Schedule

An inquiry was received some time ago concerning teachers' salaries that reveals the existence of some conditions that doubtless exist in a number of communities throughout the country. The community in question is a town of about five thousand, situated in one of the richest sections of one of the western states. There has been a good deal of dissatisfaction over teachers' salaries for some time. Nearly seventy per cent of the teachers are "home teachers." Many of these home teachers are the wives of successful professional or business men. The rest are the favorite sons and daughters of prominent people. There is a good deal of insistent clamoring for the employment of other "home girls." The salaries are low, and consequently it is difficult to get good outside teachers to come in at the salaries available. There is no salary schedule. The inquiry made by the superintendent described conditions as just stated and indicated that he was most anxious to establish good salaries. The request was also made that data concerning salaries paid teachers in other communities of similar size be included.

It is at once evident that there are two rather fundamental, as well as several other minor, problems involved in the situation just presented. The major problems existent here might well be stated as follows: (1) Home versus outside teachers; and (2) teacher salary criteria. Obviously, these questions cannot be treated in an adequate fashion here any more than they were by letter. Only on the basis of an exhaustive investigation

in the community involved can these matters be settled in a satisfactory fashion. However, there are certain fundamental theses that can be suggested, and these will be offered here.

Teaching positions in many communities in the United States are nothing short of political plums for the relatives or patronage of some influential man or group. Being the daughter of some prominent citizen, membership in some certain lodge, or affiliation with some church or faction have too long been the bases of teacher selection in our public schools.

But on the other hand the greatest of care should be exercised to make sure that just as rigid standards are used on home applicants as on outside candidates. Unless such is the case, the teaching force of any school system will degenerate to one of mediocrity, and salaries will be kept so low that even the best of the home talent as well as the superior outside teachers will refuse to consider a teaching position in a community where "pull" rather than "power" is the basis for teacher appointment. Teachers' salaries were created neither for the subsidizing of charity cases nor political dictators. Also it is a well-known fact that inbreeding is extremely dangerous for any organization. Schools are no exception to this law. Consequently, for these various reasons "home appointments" should be the minority, rather than the majority among the faculty of a local school system.

Fundamentals of Salary Determination

How much should such workers be paid is a question that arises in determining the salary or wage needs of any group. The two fundamental elements that should be considered in answering this question are: (1) The economic needs of the group of workers involved; and (2) the value of the service rendered by the group of workers involved. Therefore, stated in other terms, the two basic factors in fixing teachers' salaries are: (1) Cost of living; and (2) wages paid workers who render the least valuable personal service.

Cost of living, like all other terms, must be defined. If teachers are to hold a certain social and civic position in the community in which they live, cost of living for teachers must correspond to that position. If the position of teachers is to be above or below that, then their cost of living will vary accordingly. It seems reasonable as well as equitable to expect teachers to live in a way that will command the respect and confidence of those they serve, rather than evoke a feeling of pity and condescension, as has been the case in the past.

Teachers' salaries, then, should allow for the generous, although not luxuriant, comforts of modern life, including opportunity to travel, opportunity for constant study, and a chance for economic independence in old age. The ability of a community to pay such salaries must of necessity be considered in the fixation of teachers' salaries. However, if it is found that a community cannot afford to pay necessary salaries, the problem becomes one of state or national aid, and not one of teacher salary reduction.

Moehlman has suggested that teachers' salaries be based on the wages paid to unskilled laborers, rather than cost of living. This suggestion is made on the assumption that unskilled labor is the cheapest kind of personal service. As previously stated, it appears that both cost of living and value of teachers' service in relation to the cheapest form of personal service must be considered in fixing teachers' salaries. Unskilled labor probably does represent the personal service prized least. Consequently, wages of unskilled laborers seems to form one sound basis for fixing the remuneration of teachers.

Thorough-Going Study Necessary

As has been pointed out, there are two major problems involved here. It was impossible to give the kind of assistance needed without making a thorough-going salary study of the community involved. Consequently, as was recommended to the superintendent in the community in question, any person interested in the scientific adjustment of teachers' salaries in any given community should provide himself with a comprehensive list of works on the subject of teachers' salaries. Also, the continuing salary service of the National Education Association, along with the various bulletins issued by this organization at various times, should be at hand. The following references will prove most helpful to any administrator or group concerned with teachers' salaries and a salary schedule:

Evenden, E. S. *Teachers' Salaries and Salary Schedules in the United States, 1918-19.*

Lewis, E. E. *Personnel Problems of the Teaching Staff.* The Century Company, New York City, 1925. See Chapter XIV, p. 275-303.

McGaughy, James R., and others. *Teachers' Salaries in New York City.* Final Report of Citizens' Committee on Teachers' Salaries. Bureau of Publications, Teachers College, Columbia University, New York City, 1927, 256 p.

Moehlman, Arthur B. *Public-School Finance.* Rand, McNally Company, Chicago, 1927, 508 p. See Chapter IX, p. 118-154.

Salaries in City School Systems, 1926-27. Research Bulletin, Vol. V, No. 2, March, 1927. National Education Association, Washington, D. C.

Teachers' Salaries and Salary Trends in 1923. Research Bulletin, Vol. I, No. 3, May, 1923. National Education Association, Washington, D. C.

The Scheduling of Teachers' Salaries. Research Bulletin, Vol. V, No. 3, May, 1927. National Education Association, Washington, D. C.

Book Reviews

Books For and About Elementary Education

The Elementary-School Principalship, Bulletin of the Department of Elementary-School Principals, by the Department of Elementary-School Principals of the National Education Association of the United States.

Materials and Methods in the Middle Grades, by Joseph Lindsey Henderson, University of Texas. Ginn and Company, Boston.

Changing Conceptions of School Discipline, by Pickens E. Harris, University of Pittsburgh. The Macmillan Company, New York City.

THE POSITION of principal of an elementary school has been, down to recent times, more or less nondescript. But the situation is growing better for the principal. She—sometimes *he*—is acquiring and in most places has already acquired a definite and important status in the educational system. She has constructive as well as supervisory and administrative functions in the control of her school. Formerly, she merely carried out the instructions of the board of education, the superintendent, and the supervisors; now she takes the initiative to a greater or less extent in determining policies affecting both the materials of instruction and the method of teaching in her school. Her position is one that requires diplomatic as well as dynamic ability, for the reason that she is not entirely free to manage her school as she chooses because in all cities there is a superintendent, and in some cities one or more supervisors over her, all of whom have a voice in determining the work that is carried on under her principalship.

The Seventh Yearbook

The above observations have been incited by a reading of *The Seventh Yearbook* of the Department of Elementary-School Principals of the National Education Association of the United States. This bulletin—it contains 638 pages—deals wholly with the role that an elementary-school principal plays to-day in various cities throughout the country. The volume was prepared under the direction of a committee of the Department of Elementary-School Principals, with Mr. W. T. Longshore, of Kansas City, Mo., as chairman.

A Comprehensive Survey

The results of a thorough-going, comprehensive survey of the privileges, duties, and responsibilities, and also the professional training of the elementary-school principal are presented in this volume. The material is interesting and it is organized in a clear, orderly fashion. By running through this volume one can see in how far a principal is merely an administrative or supervisory officer or an initiating force in the school over which she presides. The relations of the principal to her superintendent, to the supervisors who come to her school, to the community in which the school is located, are covered in the bulletin.

Of Value to All Educators

There are interesting case studies of the work of outstanding principals and there is a summary of the scope and content of courses in various institutions for the training of elementary-school principals. There are other data of an illuminating and interesting character presented in the Yearbook. It contains so much concrete material, all of which is well classified and presented attractively, that it ought to be of enduring value not only for principals but also for superintendents and supervisors. Classroom teachers ought to read it so that they may become informed regarding the role that a principal ought to play in the management of her school.

Any one who has had an opportunity to observe the change that has been taking place in school discipline during the past two or three decades knows that there has been a complete shift from autocratic control to almost complete freedom

and spontaneity in some sections, possibly in *all* sections of the country. Foreign educators who come to America to inspect our education work always comment on the lack of discipline, as they believe, in our public schools. These foreign visitors have said the same expressions that often came from teachers and laymen in our country—that our pupils are "running wild;" "they are not made to behave while they are in school;" "they are disobedient;" "they ought to be governed with a stronger hand," and so on through a long list of criticisms and suggestions.

Changing Conceptions of School Discipline

Prof. Harris has shown in his *Changing Conceptions of School Discipline* that we are treating pupils very much more leniently to-day than we did a few years ago. We hold a different philosophy now from what we did formerly regarding the relations that should exist between pupils and their teachers. He has quoted views of the outstanding writers of education during the last five or six decades. It is interesting and illuminating to note how autocracy, which was advocated unqualifiedly in an earlier time, grows weaker and weaker as we come down through the decades. Three decades ago it began to lose its prestige. To-day one can hardly find an authoritative writer on education who would say that the first duty of a pupil is to obey his teacher and the chief function of a teacher is to make him obey. The story is told clearly and attractively in Prof. Harris' book. It is, by the way, one of the volumes in Prof. Bagley's Modern Teachers Series.

Is the Present Course Wise?

One cannot tell what effect the survey of views on school discipline has had on Prof. Harris himself. He has a concluding chapter in which he not only sums up the outcome of his study but he projects problems for the future. As the volume is laid down one feels that the author might have been more positive than he has been in presenting his convictions regarding the wisdom or the unwisdom of continuing to pursue the course that we have been following during the last few years. Are we heading for the rocks because we do not make obedience the most important item in training children, or are we sailing out into smooth waters in the open sea? Are we making teaching so interesting that pupils do not want to "raise Cain" when they are in school, but on the contrary, spontaneously apply themselves to the tasks that are proper for the classroom? One believes that we have been making such improvement in both the content of education and the methods of teaching that we do not now need to conduct schools on the autocratic plan; but it is not clear whether or not Prof. Harris takes this point of view as a result of his interesting, candid, and illuminating study of a very important subject.

Prof. Joseph L. Henderson, of the University of Texas, thinks that the intermediate grades in elementary schools have not, during the past few years, been receiving as much attention as the primary and the grammar grades. He has sought, therefore, to discuss the improvements of the work in these grades in his *Materials and Methods in the Middle Grades.* He covers his field comprehensively. He first discusses the characteristics of pupils during the intermediate grade period. Then he inquires what the purposes of education in the intermediate grades should be. Next follows a discussion of materials, methods, and teachers in these intermediate grades.

For the Intermediate Grades

The aim of the author has been to present in an orderly and rather popular way the views of the leaders in modern education regarding the work that should be accomplished in the intermediate grades. One can gain from this book a general view of present-day thought regarding the materials and methods that should be found in the schools; and special applications are made to the intermediate grades. It appears that the author did not aim to present any new, and especially, any revolutionary conceptions regarding the subjects to be taught or the methods of presenting them in the middle grades of the elementary school. The suggestions contained in the book seem to be rather familiar though they have not been heretofore applied especially to intermediate grades. Most, at any rate, of what is presented in Prof. Henderson's book is applicable to the work of any grade; but it is worth while for teachers in the middle grades to become acquainted with present-day views of what materials and what methods are most appropriate for their respective grades.

This book differs from the typical educational book of the times because it does not contain tables or graphs or statistical formulae. Doubtless some readers will think that the results of modern experimental work in education should have been incorporated in the book, but other readers will be pleased because the author has told his story in a rather simple, nontechnical, and hortative way. He has told the reader what to do and how to do it without presenting the detailed data upon which all of his suggestions are founded.

Books on the Sociological Aspects of Education

Vocational Civics, by Howard C. Hill, The University of Chicago High School. Ginn and Company, Boston.

Community Civics, by Howard C. Hill, The University of Chicago High School. Ginn and Company, Boston.

International Civics, by Pitman Potter, University of Wisconsin, and Roscoe L. West, Department of Public Instruction, State of New Jersey. The Macmillan Company, New York City.

Principles of Educational Sociology, by E. George Payne, School of Education, New York University. New York University Press, New York City.

DURING the past few years tremendous interest has been manifested in our country in the teaching of the social sciences. Three or four decades ago we gave attention in the school primarily to the so-called tool subjects; but during the past decade we have been appraising most highly the studies that are thought to be particularly valuable in leading a child to understand his social environment and to play an intelligent role as a citizen. Most educational conventions to-day offer several papers on the enrichment of the curriculum with subjects pertaining to human society.

Community Civics

Howard C. Hill, of the University of Chicago High School, has recently published two volumes that should be of interest and value to all those who are responsible for instruction in sciences. Both books are designed to be used as textbooks in the higher grades of the elementary school or in the junior high school. His *Community Civics* deals in a concrete way with group life, community welfare, and government and citizenship. These topics are treated in such a homelike way, if one may so speak, that pupils could hardly fail to be interested in them and to gain benefit from their study.

Mr. Hill's *Vocational Civics* carries the general principles of *Community Civics* out into particular vocations. It would be fine if every pupil could go through such a book as this before he completes the elementary school in order that he might understand the industry, business, and occupations in his community. Heretofore, a pupil might complete an elementary-school course or even a high-school course and have but slight conception of the industrial activities of the community in which he lived, with the result that he could not participate intelligently in the affairs of the community, which are always inevitably affected vitally by industry, business, and occupations.

International Civics

An effort is being made in American schools to develop international as well as national interests and viewpoints. Prof. Potter and Commissioner West have published a book, *International Civics*, that will be of service in schools in which an effort is being made—the effort ought to be made in all schools—to give pupils an understanding of international questions affecting the welfare of our own country and perhaps the welfare of mankind. There are among us some persons who believe that it is merely sentimental to attempt to train the rising generations so that their sympathies will not be limited by the boundaries of their own country; but for every one such intense nationalist there are probably five persons who believe that we have reached the point where our children should not be brought up to think there are no people but Americans who have any rights that should be respected and who are entitled to our careful consideration and regard.

Delicate problems are handled in *International Civics* in a skillful way so that prejudice will not be aroused or racial antipathies brought into the foreground. The authors are sympathetic with the movement to have our country recognize its international obligations and to play a role among and in the family of nations. But they are not propagandists and do not indulge in propaganda in their book.

Educational sociology is receiving increasing attention in colleges and universities engaged in the training of teachers. Prof. E. George Payne has prepared an outline of *Principles of Educational Sociology* for use in teacher-training institutions. Principles of educational sociology are presented in outline merely. There are problems and questions that are designed to encourage students to apply to every-day problems the principles that are presented in the text. The author expects that students will use this outline largely as a guide in their original handling of the sociological problems involved in educational work.—*M. V. O.'S.*

Educational Bill Gains Impetus at Minneapolis Meeting

THE IMPORTANCE of the Curtis-Reed educational bill authorizing the establishment of a Department of Education with a secretary in the President's cabinet was given even greater emphasis than before at the meeting of the National Education Association held July 1-6 at Minneapolis in the Municipal Auditorium. Many of the important speakers discussed this subject with the result that renewed efforts have been formulated toward the accomplishment of this piece of legislation.

With Senator Curtis, the co-author of the bill, as a vice-presidential candidate on the Republican ticket, and a plank favoring an educational department in the Democratic platform, the educators gathered at Minneapolis were spurred to a renewed enthusiasm.

Attendance Estimated at 11,000

The attendance at the Minneapolis meeting was estimated at approximately 11,000, and the meetings were divided into many groups so that all attending were given programs in which they were interested. General sessions of the National Education Association itself were held on each day of the convention and there were meetings of the Board of Directors of the National Education Association for the consideration of various subjects under discussion each day of the meeting. The National Council of Education held several sessions.

Many departments of the National Education Association held separate meetings. Of particular interest to the readers of The NATION'S SCHOOLS were those that touched upon administration rather than upon the technique of teaching.

Departmental Meetings

The Department of Superintendence held an interesting meeting on Tuesday; the Department of Vocational Education held meetings on Monday and Tuesday; the Department of Secondary-School Principals held meetings on Monday, Tuesday, and Thursday; the Department of School Health and Physical Education held meetings on Tuesday and Thursday; and the Department of Rural Education held meetings on Monday and Tuesday.

Dr. Uel W. Lamkin, president of the Northwest State Teachers College, Maryville, Mo., was unanimously chosen as president for the forthcoming year and the following were elected vice-

Uel W. Lamkin, president, Northwest State Teachers College, Maryville, Mo., who was unanimously elected president of the Association.

presidents: Caroline S. Woodruff, Castleton, Vt.; M. H. Madden, Winslow, Ariz.; Catherine Brennan, New Haven, Conn.; Ira T. Chapman, Elizabeth, N. J.; James P. Coates, Columbia, S. C.; Dr. Charles R. Foster, Indiana, Pa.; J. J. Early, Sheridan, Wyo.; Anne Graeme Fraser, Calif.; A. B. Hill, Arkadelphia, Ark.; Edith L. Grosvenor, Washington, D. C.; and Florence M. Hale, Augusta, Me. Henry Lester Smith of Bloomington, Ind., was re-elected as treasurer.

One of the outstanding features of the general meeting of the National Education Association was the morning session held on Independence Day with U. S. Commissioner of Education John J. Tigert presiding and with the address of the morning given by the Hon. Simeon D. Fess,

United States Senator from Ohio. Most enjoyable music on this occasion was furnished by various high-school bands and glee clubs of Minneapolis and St. Paul.

A breakfast in honor of President F. D. Boynton of the Department of Superintendence was given at 7:30 o'clock, Wednesday morning, at the Curtis Hotel. This was attended by many of those present at the convention and was one of

Selden Carlyle Adams, assistant director, division of publications, N. E. A., who was in charge of publicity and press service.

the many social functions that took place during the week. From luncheon on Saturday, June 30, through to luncheon on Friday, July 6, nearly every department represented at the meeting, together with many state associations, held breakfasts, luncheons, or dinners.

Aid for Rural Schools

The meeting of the Department of Superintendence was presided over by President Boynton and was held in the mayor's reception room at the Minneapolis city hall. The first paper to be discussed was entitled, "How Can the City School Unit Aid the Rural School Unit?" It had been prepared by Superintendent L. A. Butler of Grand Rapids, Mich., and Superintendent M. C. Potter of Milwaukee, Wis. Prof. Potter stated that the cities have the facilities for developing new methods and for building new courses of study, and that while this development cannot be carried over into the rural schools *in toto* many of the ideas contained are nevertheless applicable. He said that city schools to-day offered the country unit the services of laboratory and experimental stations. He stated further that the urban communities could be of financial aid to the country schools but he stated that taxation on centers of wealth would be the answer to this situation rather than taking any of the present funds away from the city school systems. Discussion on the subject was ably given by Superintendent C. S. Meek of Toledo, Ohio, who stressed important factors treated by Prof. Potter.

"High-School Supervision"

Superintendent S. O. Hartwell of St. Paul, Minn., and Superintendent M. G. Clark of Sioux City, Iowa, presented the other paper on the program on "High-School Supervision," and this was discussed by Principal B. W. Reed, Hollenbeck Junior High School, Los Angeles, Calif. Principal Reed stated that the purpose of supervision is for the improvement of instruction and that in the modern high-school curriculum content or courses of study are largely by specialists assigned by the superintendent's staff as psychologists, who, by scientific investigation, determine the outlines by which the subject-matter is to be presented and then take necessary steps to incorporate these factors.

Supervision and Heads of Departments

Principal Reed further stated: "Tradition has established the practice of carrying on high-school supervision through heads of departments. Often the department head has been chosen because of seniority rather than because of special talent or training that qualifies for supervision. The chief requirement for a high-school teacher's credentials is four or five years of academic college training. The only professional training, if any, required is a few semester hours of practice teaching, sometimes of imaginary classes, and a few hours of study of the history of education.

"Every high-school teacher, having pursued a college course with a major and minor subject, is a specialist in his subject-matter, but as a skilled artisan attempting to build character through his specialty, he is one or more generations behind his time. Right here is the demand for that supervision of which our secondary schools stand sorely in need. Because of the increased administrative duties in the modern high school the principal cannot act as supervisor of instruction. The junior high school is greatly

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concerned with the problem. Since the emphasis there must be on child training and growth rather than upon subject-matter, supervision by department heads seems unwise.

"Organized business everywhere has adopted the plan of supervision by trained specialists. Efficiency experts and personnel directors are be-

Milton C. Potter, superintendent of schools, Milwaukee, who read a paper, "How Can the City School Unit Aid the Rural School Unit?"

ing employed. Every principal should have one or more assistants, qualified by natural talent, study, training, and experience to scientifically supervise, direct, and control classroom management and instruction. These assistants must be supported by an authoritated position equal to that of a vice-principal. They must be of the principal's staff, closely associated with the counsellor and through him with the department of psychology and research. They must be relieved of all administrative work, except in an advisory capacity in the selection, assignment, and discharge of teachers."

Vocational Education

In the Department of Vocational Education, O. D. Adams, vice-president of the department, presided and at the first session three papers were read, one by Adelaide Steele Baylor, chief, home economics service, Federal Board for Vocational Education, Washington, D. C.; one by Walter C. Coffey, dean of agriculture, University of Minnesota; and the last by Robert L. Cooley, director of vocational education, Milwaukee Public Schools, and president of the American Vocational Association, Milwaukee. The second session was given over to agricultural education with A. V. Storm, professor of agricultural education, University of Minnesota, presiding and papers were given by John C. West, superintendent of schools, Bemidji, Minn.; Albert M. Field, associate professor of agricultural education, University of Minnesota; and Frank W. Lathrop, associate professor of agricultural education, University of Minnesota.

Ralph T. Craigo, associate director, Dunwoody Industrial Institute, Minneapolis, presided at the Trade Educational section held at the Institute, Thursday afternoon, July 5, at which three papers were also given.

School Health and Physical Education

James E. Rogers, director, National Physical Education Service, presided over the meeting of the Department of School Health and Physical Education. Interesting papers were given by: President Rogers; Ferdinand J. Lipovetz, director of physical education and health, Crookston, Minn.; L. M. Post, director of health education, Detroit; Ethel Perrin, staff associate, American Child Health Association, New York; Cora T. Helgesen, supervisor of school nurses, Minneapolis; Florence D. Alden, director, department of physical education for women, University of Oregon; Elizabeth Halsey, professor and head of physical education for women, State University of Iowa; Mabel C. Bragg, assistant superintendent of schools, Newton, Mass.; J. B. Nash, New York University; Edward W. Everts, state director of physical education, St. Paul, Minn.; and L. J. Keller, department of physical education and athletics, University of Minnesota.

Meeting Highly Successful

The 1928 meeting proved to be an outstanding success in many ways and the exhibits were of an unusual educational value. Much credit is due to J. W. Crabtree, secretary, and H. A. Allan, business manager of the Association, for the smooth-running meeting and exhibits. The entire basement floor was given over to exhibit space and the arrangement, with broad aisles and excellent ventilation, made the exhibits attractive and caused them to be well attended. Credit is also due to Joy Elmer Morgan and to Selden Carlyle Adams for the remarkable way in which the publicity and press service for the convention was handled.

Cram Sleep while you can *says* COMMANDER BYRD

How America's famous explorer prepares for the strain of a long, non-stop flight.

An Interview by Fitzhugh Green

COMMANDER Richard E. Byrd, hero of North Pole and Trans-Atlantic flights, said instantly when asked what he relied on most to help him stand the terrible strain of a long flight:

"Proper sleep and exercise in the weeks preceding that flight."

When Byrd hopped off for Paris at dawn on June 29th, 1927, he had had only two hours sleep the night before. He was in the air 42 hours before he landed: hours filled with the frightful bedlam of three roaring motors. He landed in France several hours after midnight and worked six hours longer without resting.

Such a test of nervous and physical endurance is almost beyond comprehension. That Byrd should survive it with no especial need for rest afterward proves supremely the truth of his simple energy formula: *sleep.*

But Byrd's hardships are not all in the field. Months before an expedition he is busy night and day with a continual round of lectures, conferences, public receptions and the personal supervision of a multitude of details—tasks that often call for more endurance than the expedition itself.

How does he do it? Not only by being rested when he starts, but by being able to go to sleep at any time even if he has only ten minutes available.

"For it is during sleep," Byrd reminded me, "that the body renews the vitality which its owner has so extravagantly used during the day."

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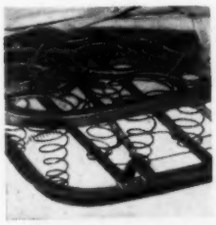

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News of the Month

Parents Often Retard Education of Feeble-minded Children

Parents of a mentally defective child, in their eagerness to have their child appear as bright as any other child, often ruin his chances for success, Meta L. Anderson, school supervisor at Newark, N. J., stated recently in an address on education for mental defectives, at a conference of state and local supervisors of rural schools of the Northeastern States held in New York City.

Frequently, Miss Anderson said, the parents refuse to allow the child to attend a special school adapted to his needs, or, if they do allow it, they bring about retarding emotional conflicts by constant nagging.

To determine the essential characteristics of the type of education best adapted to mental defectives means that we must study these children psychologically, socially, and educationally and act on the knowledge gained to establish training centers where they may receive the type of education best adapted to their needs. More than that—when we have learned what to do and are ready to do it, we must provide a situation in the school system and in the community that will be favorable to the proposition that we teach these feeble-minded children what they should be taught.

Bureau Studies Extension Work in Colleges

The purpose of a study just published by the Bureau of Education is to make available information as to what and where college and university help through extension methods may be had. The information given was gathered, in the main, by means of a questionnaire sent to all colleges and universities in the United States, and by an examination of catalogues. The study shows that many educational institutions of higher learning are giving extension work.

The two kinds of extension work most in demand are work by correspondence and work in classes held outside of the institutions. These two kinds of work are what is usually meant when people speak of university extension. However, this study shows that there is a wide variety of extension activities in addition to the two mentioned. The scope of this work is growing constantly on account of the ever-increasing number of adults who have need for guidance in their study programs.

One does not need to have any college work or even to have finished high school in order to enroll for noncredit courses through college or university extension. In the main, colleges and universities endeavor to duplicate their residence work through extension methods, but there is also a tendency to render any educational service for which there is a demand and for which they are equipped.

Work done by extension, either through correspondence study or in classes outside of the institution, may be credited toward a degree in many colleges and universities. The amount of credit that can be earned by extension work varies among institutions. In general, in institutions that offer courses by this method from one-fourth to one-half of the work necessary for a bachelor's degree may be earned by correspondence. There is a tendency to be more liberal in this regard for class work taken outside of the institution.

Most colleges and universities record credit in terms of semester hours. A semester hour is supposed to be equivalent to one hour of class instruction per week for eighteen weeks, including the periods taken for class organization at the beginning of the work and for examination at the close. In general, a semester hour means sixteen actual class hours of instruction, exclusive of the periods devoted to organization and examination.

French Secondary School Established by American University

A provisional charter for a secondary school at Chateau-Neuvic, in Dordogne, France, has been issued by the board of regents of the University of the State of New York, the Bureau of Education has just stated orally.

The institution gives training equivalent to that given in schools of New York State, and is maintained principally for the instruction of American boys between twelve and eighteen years of age whose homes are in France, the bureau said.

Under authority granted by the state, the bureau added, the board of regents of the university has chartered a number of higher institutions in foreign countries; but this is believed to be the first entirely secondary school to which such a charter has been granted.

High-School Enrollment Totals 4,000,000 Pupils

The public high school in the United States, in the one century of its existence, has attained an enrollment of approximately 4,000,000 pupils, the Bureau of Education, Department of the Interior, stated recently. It estimates that fifty-three per cent of all pupils of high-school age are enrolled in secondary institutions, 4.8 per cent of them being enrolled in private high schools and preparatory departments of higher institutions.

The public high school has had a wonderful growth. Estimating the number of persons in the United States of high-school age (those of ages fifteen, sixteen, seventeen, and eighteen) as 7,779,070 for 1926, these schools have enrolled 48.2 per cent of those who might be expected to attend high schools. Private high schools and preparatory departments of higher institutions enroll another 4.8 per cent, so that fifty-three per cent of all pupils of high-school age are now enrolled in secondary schools. The public high school will continue to grow,

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News of the Month

but probably at a rate more nearly that of the growth of population.

The reorganization of public high schools into junior and senior units and the co-ordination with junior colleges are now occupying the attention of secondary-school interests to a marked degree. The reorganization and enrichment of curricular material and the construction of buildings suitable to the needs of reorganization are being pushed forward at a rapid rate. All this is done in a serious attempt to make the secondary school better fit the needs of the pupil and of the community as well.

Increase of Women in School Administration Field

Women are taking a prominent place in the field of school administration, according to the *Educational Directory* just issued by the Bureau of Education. In this directory may be found the names of women college presidents, presidents of junior colleges, heads of departments of education in colleges and universities, presidents or deans of schools of law and medicine, presidents of institutions for the training of teachers, presidents of international associations of education, state superintendents of public instruction, and city and county superintendents of schools.

In 1916, twenty-four of the colleges and universities of the United States were presided over by women; to-day there are fifty-seven. Twelve years ago there were thirty women presiding as heads of departments of education in colleges and universities; to-day there are 101 filling these positions. Twelve years ago, twenty-six women were employed as city superintendents of schools; at the present time there are more than forty administering such offices.

The greatest demand for women in administration school work is doubtless as county, union, or district superintendents of schools. In 1916 there were 508 women filling such positions; at the present time there are 900 holding such offices. Every state but six utilizes one or more women as county, union, or district superintendents of schools. In some of the states women would seem to have almost a monopoly of the positions.

College in Alaska to Train Teachers

Two-year training courses for teachers will be established by the Alaska Agricultural College and School of Mines, Fairbanks, according to the Bureau of Education. The training of persons living in Alaska for positions as teachers in Alaska is expected to be beneficial because of the familiarity which the new teachers would have with the climate and general conditions of the Territory, the bureau states. It explains that teachers appointed in the states and going to Alaska for the first time sometimes have difficulty in adjusting themselves to the severe winters and the native environment. Decision to add the normal work to the curricula of the territorial college was reached after a conference in Washington between Dr. John J. Tigert, United States Commissioner of Education, and Charles E. Bunnell, president of the college.

Graduates of the new courses may be considered for appointment as teachers in the schools for Alaskan natives conducted by the Bureau of Education.

The work of the natives includes the promotion of native industries, domestic arts, personal hygiene, village sanitation, and morality as well as the elementary subjects usually taught in the schools. Residents of Alaska presumably understand these things and are already fully acclimated.

Dr. Tigert also requested President Bunnell to co-operate further with the Bureau of Education by developing plans for special instruction for Eskimo boys engaged in the reindeer industry.

Instruction for intending teachers and for the native boys is in accord with President Bunnell's policy of making the college an active instrumentality in the development of the territory. He expects to issue a bulletin in a short time outlining the new courses.

Outline Development of Education in Hawaiian Islands

The history of the development of free education and laws concerning compulsory attendance in the Hawaiian Islands, which in the case of attendance precedes the United States by eleven years, is contained in the proceedings of the first Pan-American Conference on Education, held in Honolulu. Education at the expense of the government was established in 1823 in Hawaii, seventy-five years before the islands became a part of the United States.

The origin of this education was unusual in that the high chiefs were the first pupils. Each chief sent the most proficient scholars to his different islands as teachers with a notice to his tenants to attend school. The instruction was in the Hawaiian language, which had been reduced to written form but a short time previous by missionaries. The eagerness of the people to acquire the novel art of reading and writing was intense and practically the whole population of both sexes and all ages went to school. These primitive schools, at the time of their highest prosperity, numbered 900 and were attended by approximately 52,000 pupils.

They spread rapidly over the islands to the remotest villages and flourished for about ten years. The schools were in session from one to two hours during the latter part of the day, and the subjects taught were reading, writing, elementary arithmetic, and geography. The headman of each village was ordered by his chief to provide the teacher with a house and food and clothing.

When Hawaii was annexed to the United States in 1898 the system of education provided free education and compulsory attendance of all children from six to fourteen years of age. This system has been continued since that time under a board of education and superintendent of public instruction.

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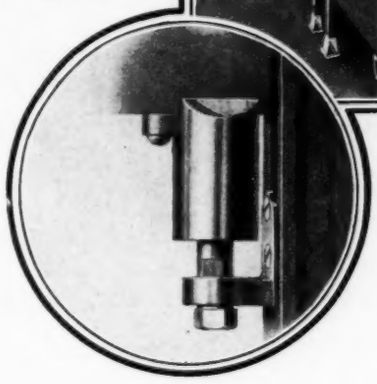

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News of the Month

Catholic Educational Association Holds Annual Meeting

Approximately 2,000 administrators of Catholic schools in the United States and Canada attended the twenty-fifth annual meeting of the National Catholic Educational Association held at Loyola University, June 25-28. Diocesan directors, lay brothers, and many sisters filled the various halls where the meetings were held and from every standpoint the meeting was an outstanding success.

The program was divided into sessions, with the opening meeting on Tuesday, June 26, and the first paper given was entitled, "Standardization and Its Abuse," by the Rev. Henry Woods, S.J., University of Santa Clara, Santa Clara, Calif. The only other session of the general meeting was held on Thursday afternoon when reports were received, election of officers was held, and a paper, "Catholic Ideals in Higher Education," was read by Charles Phillips, professor of English at the University of Notre Dame.

Considerable interest was manifested at the meeting of the department of colleges and secondary schools which opened on Tuesday afternoon with the appointment of committees, and an address by the president, the Rev. J. W. R. Maguire, C.S.V., St. Viator College, Bourbonnais, Ill. A report on the commission of standardization given by the Rev. Daniel M. O'Connell, S.J., vice president of St. Xavier College, Cincinnati, completed the afternoon session.

On Wednesday morning the department heard the report of the committee on graduate schools by the Rev. Alphonse M. Schwitalla, S.J., St. Louis University, St. Louis. There was also a report given by the Rev. James A. Reeves, S.T.D., Seton Hill College, Greensburg, Pa., on philosophy studies. At the afternoon session much discussion was aroused by the paper entitled, "Status of the Lay Professor in the Catholic College," presented by the Rev. John F. McCormick, S.J., Marquette University. Formal discussions were given by Prof. John V. Sweeney, Manhattan College, New York, and Sister Mary Francisca, Seton Hill College, Greensburg, Pa.

The Rev. Maurice S. Sheehy, of the Catholic University of America, Washington, D. C., gave the first paper on Thursday morning in the college and secondary-school department on "Tendencies in Higher Education." Sister Mary Ruth, Rosary College, River Forest, Ill., read a paper on "The Function of Religion in Character Formation." The rest of the morning was devoted to a business session.

Sessions on secondary education played an important role in the meeting. Sessions were held on each of the four days with the following papers presented: "The Secondary Section, What Has Been Done, and What Is to Be Done," by the Very Rev. William P. McNally, S.T.L., rector of Roman Catholic High School, Philadelphia; "What Is Wrong With the Teaching of Religion in Our Secondary Schools?" by the Rev. Joaquin F. Garcia, C.M., Niagara University, Niagara Falls, N. Y.; "The Scientific Approach to the Measurement of Character," by Brother Matthew, C.S.C., Dujarie Institute, Notre Dame, Ind.; "The Purpose and Content of High-School Algebra," by Sister M. Pauline, Sisters of St. Joseph, Aquinas Institute, Rochester, N. Y.; "Basic Consideration on the Teaching of English Literature," by the Rev. John I. Barrett, S.T.D., J.C.L., archdiocesan director of Catholic education, Baltimore, Md.; "High-School Chemistry Teaching," by the Rev. George L. Coyle, S.J., Georgetown University, Washington, D. C.; and "Some Elements in Teaching Elementary Latin," by the Rev. Michael L. Moriarty, University of Notre Dame.

Salary Statistics of Elementary Teachers

Salaries paid to elementary teachers in cities of 100,000 population and over range from a low minimum of $950 per year to a high maximum of $3,504 per year, according to figures just made public. The low minimum is given for Salt Lake City, Utah, which also has the highest number of annual increases required to reach the maximum, or seventeen annual increases. The highest maximum salary is given for New York City.

The following figures show, first, the minimum salary; second, the maximum salary; and third, the number of annual increases required to reach the maximum:

Alabama: Birmingham, $1,000, $2,000, 10.

California: Los Angeles, $1,400, $2,440, 13; Oakland, $1,380, $2,460, 9; San Francisco, $1,400, $2,400, 11.

Colorado: Denver, $1,200, $2,520, not specified.

Connecticut: Bridgeport, $1,000, $3,100, not specified; Hartford, $1,000, $2,000, not specified; New Haven, $1,000, $1,850, 9.

Delaware: Wilmington, $1,000; $1,800, 9.

District of Columbia: $1,400, $2,600, not specified.

Illinois: Chicago, $1,500, $2,500, 8.

Indiana: Indianapolis, $1,300, $2,800, 12.

Iowa: Des Moines, $1,200, $2,210, not specified.

Kansas: Kansas City, $1,200, $1,788, not specified.

Louisiana: New Orleans, $1,200, $2,250, 8.

Maryland: Baltimore, $1,200, $1,800, 6.

Massachusetts: Cambridge, $1,228, $1,804, 6; Fall River, $1,100, $1,700, 6; Lowell, $1,200, $1,700, 6; New Bedford, $1,000, $1,900, 10; Springfield, $1,300, $1,900, 6; Worcester, $1,200, $2,000, 8.

Michigan: Detroit, $1,200, $2,000, 5; Grand Rapids, $1,200, $2,000, not specified.

Minnesota: Minneapolis, $1,200, $2,500, not specified; St. Paul, $1,100, $1,700, 10.

Missouri: St. Louis, $1,200, $2,700, not specified.

New Jersey: Jersey City, $1,400, 2,800, 14; Paterson, $1,200, $2,800, 12.

New York: Albany, $1,100, $1,900, not specified; Buf-

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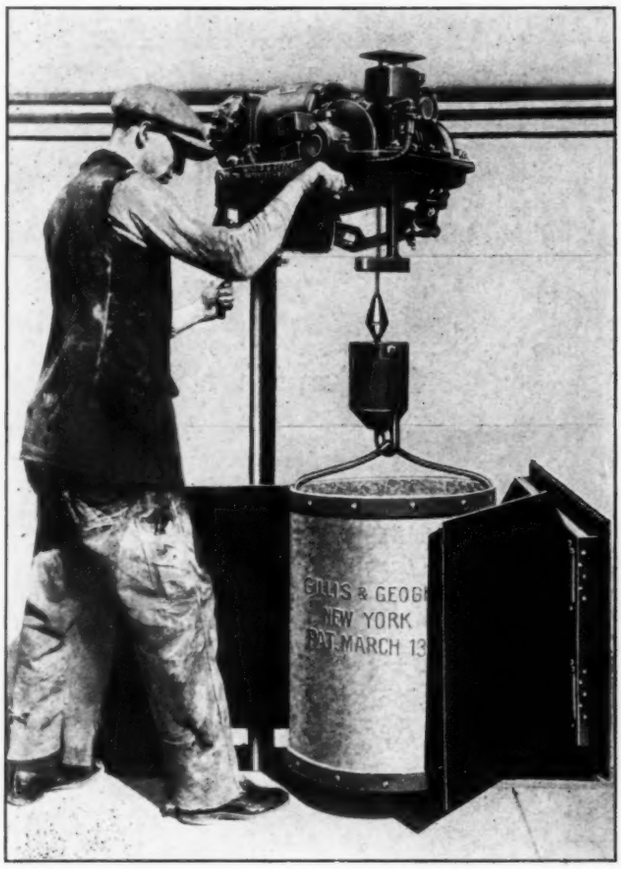

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News of the Month

falo, $1,200, $2,500, not specified; New York, $1,608, $3,504, 13; Rochester, $1,200, $2,400, 8; Syracuse, $1,200, $2,400, not specified; Yonkers, $1,500, $2,835, 12.

Ohio: Akron, $1,000, $2,000, 10; Cincinnati, not specified, $2,000, not specified; Cleveland, $1,200, $2,800, not specified; Toledo, $1,250, $2,240, 9.

Oregon: Portland, $1,300, $2,200, 11.

Pennsylvania: Philadelphia, $1,200, $2,400, not specified; Pittsburgh, $1,200, $2,000, 8; Scranton, $1,000, $1,800, 8.

Rhode Island: Providence, $1,000, $2,000, not specified.

Tennessee: Nashville, $1,200, $1,380, 3.

Texas: Houston, $1,000, $1,800, 8.

Utah: Salt Lake City, $950, $2,200, 17.

Virginia: Norfolk, $1,000, $1,500, 7; Richmond, $1,100, $1,800, 9.

Washington: Seattle, $1,440, $2,100, 11; Spokane, $1,200, $2,150, not specified.

Wisconsin: Milwaukee, $1,200, $2,600, 12.

Effective Safety Education in Honolulu Schools

Safety education in Honolulu schools has been so effective that, during the past six years, not a single child has been fatally injured near a public school, according to a recent report.

About 350 junior police officers guard street intersections in the vicinity of the school buildings, and practical safety lessons are given daily in primary grades.

An innovation is the publication by a local newspaper of a safety lesson each week which may be used in school instruction. The board of education co-operates with other departments, and in public-school assemblies attended by the sheriff and other officials, some 1,000 pupils heard accident prevention talks.

Discourage Withdrawal from School to Enter Labor Market

The New York City Vocational Service for Juniors announces that it is making efforts to discourage boys and girls who can afford to remain in school from getting working papers and entering the already overcrowded labor market.

A statement relating to the employment of girls, sent out to school principals for distribution to children and parents, reports that during the first three months of 1928 applications for work were received from 166 girls under the age of sixteen. For these applicants 144 openings were available, but of this number thirty-five per cent were known to be temporary and only twenty-six per cent were for office work, which most of the girls wanted. Many of the openings listed had been filled, often by older workers, before the girls had opportunity to apply, so that out of the total of 166 only ninety-three were placed.

Of the jobs obtained, fourteen per cent lasted less than a week, forty-three per cent less than a month, and at least seventy-six per cent less than three months. "When we consider," the bulletin concludes, "that the average pay of the younger girl is but $10 to $12 per week, and when her frequent and long periods of idleness between jobs are taken into account, it is evident that the actual money she earns during the course of a year is little more than she could earn if she stayed in full-time school and obtained work of some sort after school hours."

Netherlands Plans Congress for Commercial Education

American individuals and organizations have been invited by The Netherlands Government to take part in an International Congress for Commercial Education, to be held at Amsterdam in September, 1929, according to a recent announcement.

International congresses for the promotion of commercial education were frequently held in Europe prior to the World War. At a meeting of business men and commercial educators held in Zurich in 1926, the International Association for Commercial Education was re-established and this convention also authorized the organization of the international congress to be held in 1929.

Prominent merchants and chambers of commerce in Holland are co-operating in the enterprise, and the Dutch Government has granted a subsidy for the calling of the congress.

Scandinavian Homes to Entertain 400 American Boys

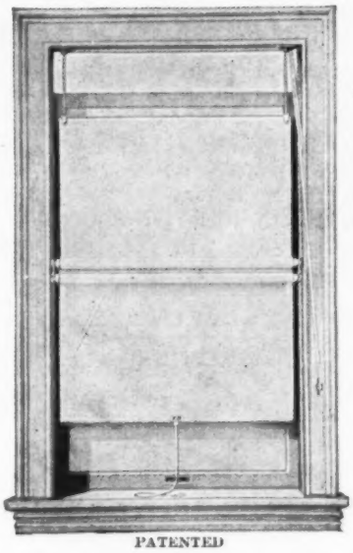
Four hundred American boys have been invited this summer to visit homes in Denmark, Sweden, and Norway, where English is understood and spoken and where they will be entertained without charge. Preparations are being made in the three countries to receive the youthful excursionists, all of whom have been chosen by the principal of secondary schools or by the Directory of Boys of all Nations, Boston, Mass., from the best American correspondents of the "Friend Abroad" clubs.

The foregoing international visits have no governmental or organizational support.

The total cost of transportation, lodging, food, and other essential expenses must be borne by the boys themselves and is estimated at $325. The excursion this year is an extension of last year's trip to Denmark, on which occasion athletic meets of American, British, and Danish boys were held. Soccer, baseball, football, tug-of-war, and old Danish folk dances were indulged in. The King of Denmark witnessed many of these events, and expressed his interest and enjoyment.

Last year each boy was able to reduce the price of his passage by lending a hand in the routine work of the ship on which he traveled. This possibility does not exist this year.

Six of the American boys last year gave vivid descrip-



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News of the Month

tions of American school life before the National Association of Education of Denmark, and many boys visited schools and gave talks on American life and activities.

The 400 boys who are to visit Europe this summer will leave New York on July 28. Their first call will be at Oslo, the capital of Norway, where two groups of 200 boys each will take special trains to Sweden, one group going to Gothenburg and the other to Stockholm, for a visit of three weeks. While one group makes the trip the other remains on the steamer and is divided into four groups of 50 boys. Each of these four groups has an American adult leader, and will make ten-day visits to Odense, a town on the island of Fyn; Vojle, a town in the southern part of Jutland; Aalborg, a town in the northern part of Jutland; and Bornholm, a Danish island in the Baltic. They will then visit Oslo and be entertained there for eight days.

On August 29, the 400 boys and their leaders will visit Copenhagen. On September 12, they will sail for home and arrive in New York on September 23. The social and educational significance of this excursion cannot be estimated—to say nothing of the promotion of international relations.

Study Earning Power of Students of Antioch College

The average weekly wage of men students in Antioch College, Yellow Springs, Ohio, where students, by alternating productive work and study, may be practically self-supporting, is $22 in the freshman year and $35 in the senior year, according to a recent statement. For women students, the figures were given as $15 and $25.

It is stated that half of the graduates in 1927 affiliated with employers who co-operate with the college. The average age at entrance to the college is eighteen years, and most students complete the course in five years. About half of them attend college full time during one school year.

Court to Decide Who Determines School Budget

Formal action has been started by the school committee of Lowell, Mass., to determine just who shall name the amount of money to be spent annually in the school department. This question has come up year after year, the city council claiming the right to name the sum the school committee shall spend in its department, while the committee, on the other hand, because its members are elected by the electorate, claim the right of naming its own budget out of the tax levy.

The committee has named Herbert Parker, former attorney-general of Massachusetts and an expert in school matters, as advisory counsel, and Hugh F. Downey, attorney and member of the committee, as chief counsel, to have charge of the legal procedure.

In this particular action the committee seeks to force the mayor, the city council, and the finance commission to restore the sum of $43,000, which the council deducted from the budget estimates this year. Failing in repeated requests to secure the grant, the committee has finally decided to test the case in the courts to establish the supremacy of either one body or the other over the naming of the budget amount for the department.

Tuberculosis Sanitarium Maintains School for Children

Tubercular children in Oswego County, N. Y., are given regular school work, in order that they may pass the usual scholarship examinations and receive promotions, according to a recent announcement.

A school for tubercular children has been organized in the tuberculosis sanitarium of the county. The work had its inception in a class organized several years ago by a teacher, herself a patient in the institution, who devoted two hours a day to instruction of the children in the effort to hasten their recovery by keeping their minds active.

The county has since built a children's pavilion, which includes a well-equipped schoolroom in charge of a licensed teacher who is also play director during recreation periods and vacations. Instruction given the children last year enabled most of them to pass the same grade and regents preliminary examinations as those given other children in the supervisory district.

War Department Honors Sixteen Military Schools

Sixteen military academies in the United States have been selected as "honor" schools by the Department of War, according to a recent announcement by that Department.

In accordance with the War Department custom of selecting as honor military schools certain institutions from among the essentially military schools (Class M) which maintain exceptionally efficient Reserve Officers' Training Corps units, the following schools have been designated as honor military schools for the year 1928:

Allen Academy, Bryan, Tex.
Culver Military Academy, Culver, Ind.
Georgia Military Academy, College Park, Ga.
Gulf Coast Military Academy, Gulfport, Miss.
Kemper Military School, Booneville, Mo.
New Mexico Military Institute, Roswell, N. M.
New York Military Academy, Cornwall-on-Hudson, N. Y.
Northwestern Military and Naval Academy, Lake Geneva, Wis.
Riverside Academy, Gainesville, Ga.
St. Johns Military Academy, Delafield, Wis.
Shattuck School, Fairbault, Minn.
Staunton Military Academy, Staunton, Va.
Tennessee Military Institute, Sweetwater, Tenn.
The Manlius School, Manlius, N. Y.
Wentworth Military Academy, Lexington, Mo.
Western Military Academy, Alton, Ill.

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News of the Month

Mental Hygiene Established in Los Angeles Schools

A department of mental hygiene has been established in the public schools of Los Angeles, Calif., the Bureau of Education, Department of the Interior, has just announced. The activity comprises a physchological clinic, counsellor service, special classes for different types of atypical children, special teaching material for such classes, and a demonstration nursery school, it was stated by the bureau.

Cost of Maintaining Pupils Increases

The cost of maintaining a pupil in public school is more than two and a half times as great to-day as it was fifteen years ago, according to figures just compiled. Back in 1913 the cost of schools, divided by the number of pupils actually attending, showed that $38.31 annually should be chalked up against each of them. In 1916 the figure had grown to $49.12, in 1920 to $64.16, in 1925 to $98.45, while the latest figure available shows an expenditure of $102.05.

The expenditures for public schools have almost doubled since 1920. Annual expenditures for grounds, buildings, and contents increased rapidly from 1920 to 1925 when they reached the huge figure of $433,000,000. The year following there was a decrease of $22,000,000 spent for these purposes, which was taken as an indication that construction had overtaken the shortage caused by the war.

The increase in school expenditures may be charged up to two main accounts—decreased purchasing power of the dollar, and the improved school facilities being generally provided.

Offer Commercial Training for Elementary Girls

Courses in commercial training for girl graduates of elementary schools have been established by a public school in Manhattan, New York City. This one-year school, offering training in typewriting, shorthand, and bookkeeping, and designed to make it possible for girls who cannot attend high school to take positions in offices, is said to be the only one of its kind. There is no age limit.

Seven States Have Laws Requiring Safety Teaching

Teaching of safety or traffic regulations in the public schools is required in seven states and there is an ever-increasing sentiment to make this work a part of school studies throughout the country, according to the American Automobile Association. The states that have laws upon this subject are New Jersey, North Carolina, Ohio, Pennsylvania, Virginia, Wisconsin, and Wyoming.

In New Jersey each teacher is required to devote thirty minutes each two weeks to the instruction of ways and means of preventing accidents. In North Carolina there is safety instruction once a week. Thirty minutes a month is the time devoted to this subject in Ohio, while in Pennsylvania the statute requires that training in "safety first" methods be given.

Virginia and Wisconsin have the same requirement, that of thirty minutes per month toward safety instruction. In Wyoming the law requires that each teacher in the public schools devote sixty minutes each month to the teaching of accident prevention.

Pennsylvania State College Surveys Apprentice Training

A survey of methods used in the training of apprentices in the larger industries of the East has been begun by the engineering extension department of Pennsylvania State College, the Bureau of Education has just stated orally.

It is expected, according to the bureau, that the survey will enable the college to improve its educational service to industrial employees, which at present is reaching approximately 10,000 employees.

School Children Exchange Floral Greetings

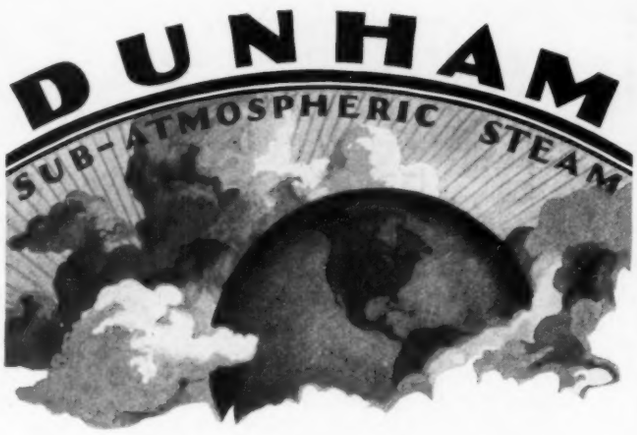
School children of Georgia and New Hampshire exchanged springtime floral greetings this year, the innovation resulting from correspondence between M. L. Duggan, state superintendent of schools of Georgia, and E. W. Butterfield, commissioner of education in New Hampshire. Flowers typical of the two states were suggested as appropriate for these greetings.

The names of 100 Georgia schools were sent to New Hampshire and soon 100 boxes containing trailing arbutus were sent to these institutions, while an equal number of boxes filled with peach blossoms were sent to New Hampshire schools.

Colleges Maintain Information Services for Public

Fifty-nine colleges and universities in thirty-three states, Hawaii, and the Philippine Islands report that they are rendering an information service for the public, according to a recent announcement. This consists of searching out and distributing facts and ideas from the many sources available at the institutions. In this connection three distinct forms of service are offered:

(1) Library service.—College and university libraries are, so far as possible, extending their library service to all who request it. If a state has not a library system, these institutional libraries supply the demand upon them so far as their limited funds will permit. If there



Controlled by Definite Infallible Laws

THE Dunham Differential Vacuum Heating System is controlled by laws as definite as the cosmic forces which govern the earth in its journey around the sun, or which cause to function in harmony the millions of stars comprising the "spacious firmament on high."

Natural laws are utilized in this new Dunham Heating System to produce results that hitherto have been unattainable in any type of heating system. Steam at less than atmospheric pressure and at temperatures considerably below the ordinary boiling point of water, provides comfortable, healthful warmth in every room during the milder days which comprise 95% of the heating season. This modified heat input into the rooms works in harmony with nature's law by balancing the heat input and the heat loss. By correctly utilizing this law, fuel waste from overfiring is reduced and the evils of wasteful window opening are eliminated.

Remarkable fuel economies have been obtained in differing types of installations in various sections of the United States and Canada. For example, in a nine story office building (Chicago) the fuel (oil) cost but $1314.30 for the eight months period from Oct. 1, 1927, to May 31, 1928. A fourteen story apartment building (Chicago) effected a fuel (coal) saving of 295 tons for the heating season of 1926-1927 as compared with 1925-1926, an economy of 27½%. In the manufacturing plant of the Yankee Cake Company, Providence, R. I., during a test period with outdoor temperatures six degrees lower than prevailed when operated as a Vacuum Return Line System, the Dunham Differential Vacuum Heating System produced a fuel saving of 33⅓%.

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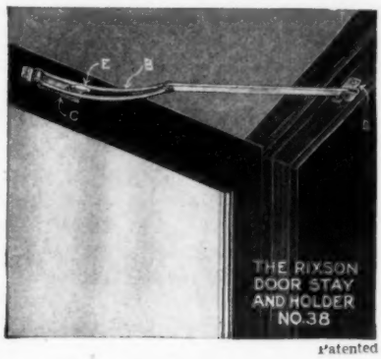

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No. 38 & 39

Door Stay and Holder

As a door holder this device holds the door wide open by a thumb piece adjustment. (The No. 39 Door-Stay and Holder is identical to No. 38, with the exception that thumb piece "E" is made a stationary block, so designed that by applying a slight pressure to the door, this block will engage the curved arms "B," holding the door in an open position.) A slight pressure at the handle of the door will either engage or release the hold-open feature. Meets fully every demand for door-swinging protection.

A circular completely detailing the Rixson Door-Stay and Holder will be sent on request. Write for it.

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Olive Knuckle Hinges	Concealed Transom Operators	Butts, Pivots and Bolts
		Door Stays and Holders

News of the Month

is a state library system, these college and university libraries render a specialized service by furnishing organized study materials to individuals and to study groups.

(2) Package libraries.—These libraries are made up largely of magazine clippings that are selected from current issues of pamphlets and reports. Some of the libraries collect and send packages on more than 1,000 subjects. These packages are lent to libraries and adult citizens usually for periods of two weeks, but they may be kept longer if necessary. In most of the universities and colleges there is no charge in connection with this service, except for mailing the materials.

(3) Public discussion.—To supplement the assistance given through their library and package library service, the extension divisions frequently prepare, for the use of public speakers and discussion groups, lists of important subjects, bibliographies, and study outlines. This material is gathered from authoritative sources on such subjects as municipal government, child welfare, public health, and civics.

Columbia University Plans New Program of Study

A new program of under-graduate study for Columbia University to go into effect in September was recently announced by President Nicholas Murray Butler, which will displace the method in use for the past twenty years. Under the new system the first two years of study will be a period of "orientation and discovery." The junior and senior years will be devoted to genuine university work for graduate or professional study or "for the yet more serious business of living a useful and high-minded life."

There will be lecture courses that demand neither prerequisite nor examination, and reading courses given cooperatively by instructors in various departments. The system was evolved after a year's study by the faculty, with the knowledge that three-fourths of the students at Columbia look forward to further study.

Student Health-Service Growth in American Colleges

Health has been defined as "the quality of life that renders the individual fit to live most and serve best." As an outgrowth of this idea, student health service has been developed in colleges and universities for safeguarding of health. The majority of American colleges and universities provide such service. Some institutions require all students to visit this department at stated intervals for physical examination, a physician being available daily for advice. There is usually excellent co-operation between the health-service department and the department of physical education and athletics. All students taking part in athletics are given frequent special examinations of heart and lungs, and all excuses from the regular class work in physical education must be handled through the health-service organization.

According to a recent study, 130 institutions, including sixty-three public and sixty-seven private, provide at least one physician for examinations and consultation. One public institution arranges for the city board of health to do this; 121 institutions, including sixty-five public and fifty-six private, provide nurses to assist in this work; 116 institutions, including sixty public and fifty-six private, provide hospitals or infirmaries; forty-one institutions, including twenty-three public and eighteen private, provide this service free for the student; while sixty-two institutions, including thirty-six public and twenty-six private, charge a small fee, or let the student pay a small percentage of the costs, especially for hospital care. The fee charged for this service varies from $1 each semester to $10 a year.

Howard L. Rawdon Honored by Oberlin Teachers

Howard L. Rawdon, who has served as superintendent of schools, Oberlin, Ohio, for the past twenty years, and who has been a member of the National Education Association during that period, was recently presented with a life membership in the National Education Association by the teachers of the public schools of Oberlin in recognition of the esteem and regard in which they hold him.

Debates Prove Popular in North Carolina High Schools

Debating contests proved the most popular of the sixteen varieties of state inter-high-school contests sponsored by the University of North Carolina university extension division during the school year 1926-27. Of 343 schools participating in the contests, 223 entered for debates. The total number of high-school entries was 720.

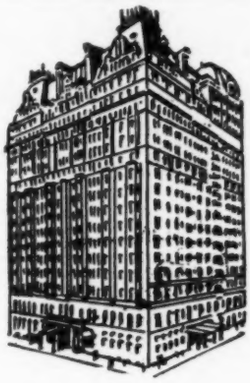
Basket ball brought out the next largest number of competing schools, totaling 129. The number of schools competing in other activities was: Baseball, 73; football, 38; dramatics, 45; mathematics, 36; French, 52; Latin, 33; and Spanish, 4.

Track meets, tennis, standard physical ability tests, poster work, typewriting, and magazine and newspaper work were other contests promoted by the division.

New York University Students Earn $27,000,000 in One Year

Students at New York University earned $27,000,000 last year, according to Francis W. Lawson, director of that institution's bureau of employment, who points out that while certain persons are casting doubt on the serious purposes of the modern college youths, the students are demonstrating in a practical way the value of classroom training.

"Seventy per cent of the students at New York University," states Mr. Lawson, "are dependent either wholly



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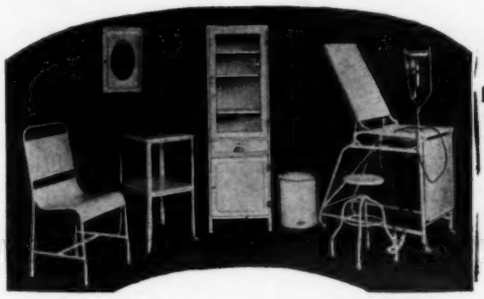

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News of the Month

or in part upon their own income, and the average salary of the 17,570 students who do full-time work is over $1,500 a year. The 3,545 students who do part-time work have a per capita earning of almost $300 a year.

The New York University bureau of employment serves without charge more than 32,000 enrolled students during the year.

Dartmouth Prohibits Extra Credit in Summer Schools

A ruling prohibiting students from attending summer school for the purpose of gaining extra credit was recently announced by the faculty of Dartmouth University. The order is to become effective during the academic year of 1929-30. Only in certain cases, through permission of the committee on administration, will students be permitted to attend summer classes and receive credit.

The faculty decreed that when the new ruling becomes effective students will lose only point credit for overcutting classes instead of losing hours and points as under the policy that now obtains. The students, under the ruling, may take greater liberities in cutting classes, but will be required to increase their grade, thus emphasizing the quality rather than the quantity of their work.

Many Nationalities Attend New Haven Schools

Seventy-one per cent of the pupils in the public schools of New Haven, Conn., are children of foreign-born parents who are natives of forty-eight countries, according to a recent announcement. Of the whole number of pupils 52.8 per cent are Italian, 18.4 per cent are Russian, and 5.3 per cent are Polish.

Offer First Health Education Course for Continuation Schools

The first course in health education for workers in continuation schools is to be offered this fall by Teachers College, Columbia University, according to a recent announcement, and special lecturers who are well acquainted in this field will give instruction in this course. It is planned to meet the specific needs that have been clearly recognized in a thorough, constructive study now being made in the New York City continuation schools, and this course is being given at the request of the committee directing that project. The course is approved by the New York Board of Examiners, and accepted for credit toward a teaching license for continuation schools.

Practical problems of adolescent work will be studied. Among the subjects to be considered are: Safety and First Aid in the Job; Posture and the Job; and Nutrition for the Worker.

Prof. Thomas D. Wood, who aided in determining the physical standards for working children, and who has been appointed lecturer in the course, recently stated, "The opportunities for pioneer work in health programs in continuation schools are often unappreciated. Working adolescents must be helped to understand their health possibilities and limitations, and they should be taught simple, practicable measures for attaining and maintaining their optimum health. Every teacher in the continuation school has a definite contribution to make to the health and efficiency of these adolescents, and the contribution of every teacher is essential. The time in continuation school is brief and every possible opportunity for health teaching must be used, with due consideration of other educational needs."

Vienna School Experiments Hampered by Visitors

Some unusual experiments are being carried on in the schools of Vienna, Austria, and the great number of visitors to these schools has so interfered with the instruction that it has become necessary for the government to make rulings pertaining thereto, and to admit visitors only in groups on certain days of the week, and only those persons who are seriously interested in pedagogy, according to the Federal Chancellery of Foreign Affairs at Vienna.

Requests for permission to visit federal educational institutions in Vienna must be addressed, if feasible, about a fortnight before the intended visit, by the persons concerned to the Ministry of Education, Vienna I, Minoritenplatz 5.

Every request must contain the name and address of the visitor, or, if a group, the name of the leader and the number of the participants; the name of the institutions to be visited, together with the purpose of the visit, whether it be for inspection or to attend classes; the length of time and presumable duration of the visit.

Inspections by groups are to be restricted to certain afternoons, and the attendance of classes by individuals as outsiders will be arranged in accordance with the plans of instruction in each case.

No visitors will be allowed within the first half of February or the last half of June, owing to final examinations; nor will visitors be received during any holidays.

College Degrees Increase With Student Population

The increase in the number of degrees granted by universities and colleges is keeping pace with the marked increase in the number of students in attendance, according to recent figures that show an increase from 47,326, in 1920, to 59,873, in 1922; then to 79,582, in 1924; and to 91,625 in 1926. This is an increase of twenty-seven per cent for the first two-year period, thirty-three per cent for the second, and fifteen per cent for the third.

In 1925-26, there were conferred by the universities and colleges in the United States, 41,106 baccalaureate degrees upon men, and 30,423 upon women. These institutions conferred 7,700 graduate degrees upon men, and

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Among those who have tried Edelweiss sea food, it is a habit to speak of their "wonderful quality and flavor." There is a reason for this. Sexton standards are uncompromising. Only the cream of the catch passes the scrutiny of those charged with the selection of fish for the Edelweiss label. Sardines from off the shores of Norway and France, salmon from the cold waters of Alaska, crabmeat from deep waters off Japan, every variety comes from the waters noted for producing the finest of the species. To insure your patrons the best—serve Edelweiss, with confidence.

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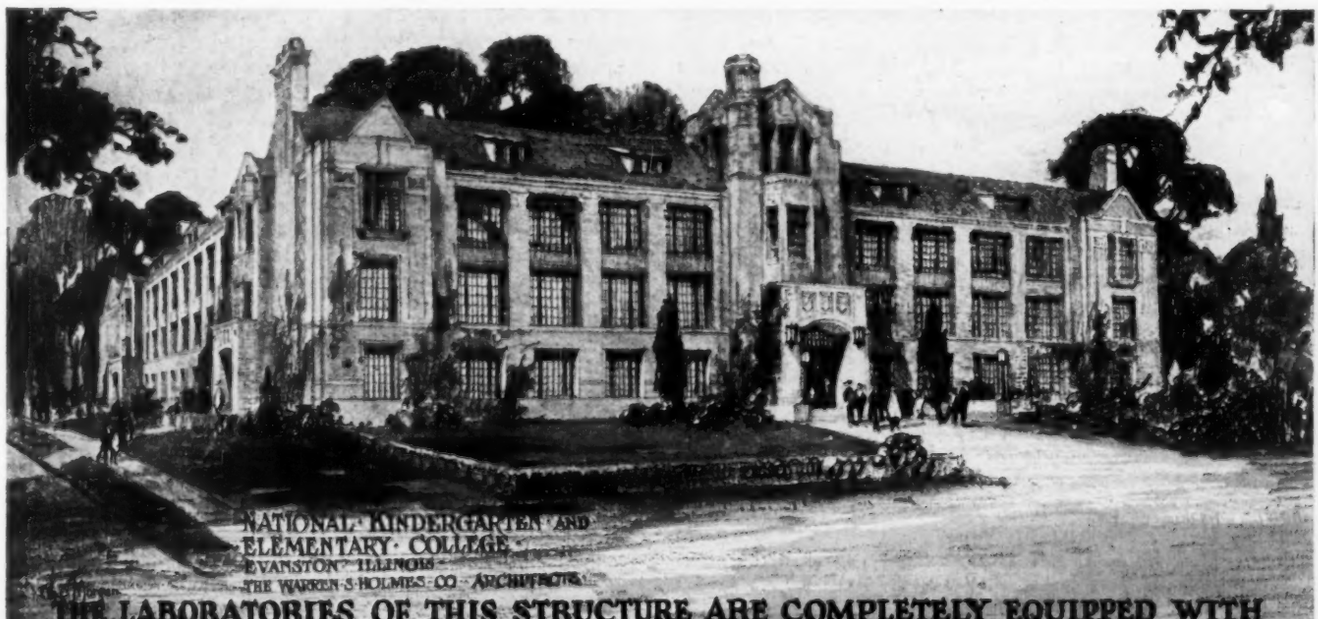

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News of the Month

3,751 upon women. Included in the graduate degrees are 1,302 Ph.D. degrees; 1,115 were conferred upon men, and 187 upon women.

The professional schools conferred 20,096 professional degrees, distributed as follows: Schools of theology, 1,357; schools of law, 7,938; schools of medicine, 4,122; schools of dentistry, 2,666; schools of pharmacy, 3,497; schools of osteopathy, 393; and schools of veterinary medicine, 123.

In all, there were conferred 1,214 honorary degrees, three of which were doctor of philosophy degrees. Some universities confer none or very few honorary degrees.

Figures Available on College Receipts

The total receipts by universities, colleges, and professional schools for 1925-26 were $479,774,664, including receipts for additions to endowments. If the latter are excluded, the total is $407,400,056.

There were received from student fees, $101,499,120; for board, $32,072,876; from productive funds, $49,748,999; from state or city for increase of plant, $18,355,836; from state or city for current expenses, $81,522,432; from the United States Government, $16,144,147; from private benefactions for additions to endowment, $72,374,608; from private benefactions for current expenses, $16,396,853; and from all other sources, $51,912,421.

The total income for the year for public institutions, including additions to endowments, is $176,205,020, and for private institutions, $303,569,644.

Classified by method of support and control, institutions of higher education are of two general kinds—public and private. The publicly supported institutions derive their income mainly from three sources: The city, the state, and the Federal Government. In the aggregate, the states contribute the largest sums toward public higher education. The receipts are increased by the fees and tuition charged the students and by private gifts and endowments.

School Buildings and Property Values

The people of the United States consider it a privilege and a duty to see that as far as possible, their children are educated and trained. With such general faith in education—a growth of nearly three centuries—the question in the United States is not only whether there shall be educational facilities for all people but how those facilities may be best provided and how the process of education may be constantly improved.

According to recent figures, the total number of public-school buildings has decreased from 258,859, in 1925, to 256,104 in 1926. This decrease is caused by the replacement of one-room schools by consolidated schools, since the number of one-room schools has decreased from approximately 166,000 to 161,521 during the year, and 687 consolidated schools have been added.

The value of school property has increased correspondingly from $4,252,328,000 to $4,676,603,539 from 1925 to 1926. Of this latter sum $3,567,213,562 is the value of sites and buildings, while the remainder of the total value is in equipment, such as furniture, apparatus, libraries, etc. The average value of school property per pupil enrolled is $189.

Czechoslovak Teachers Allowed Maternity Leave

By recent order of the Czechoslovak Ministry of Education, maternity leave of absence for three months may be granted to married teachers, according to a recent announcement. Further leave may be allowed, but without pay, and the time of such leave will not be credited toward promotion to a higher grade nor toward service requirement for pension.

Plan Elementary-School Course in Money Management

A course of instruction in money management will be given experimentally to elementary pupils in two grades of Driscoll and Devotion schools, Brookline, Mass., according to an announcement on June 19.

The course was planned by a member of the faculty of the high school, who is chairman of the economics committee of the Massachusetts Teachers Federation. According to the announcement, the study will be a systematic one of the implications of money as they confront the self-supporting adult; namely, "the necessity for work; capacity to earn; usefulness of work to others; payment in return for service; and use of money in saving, spending, and giving."

Baltimore Plans Junior Safety Patrols

Baltimore school authorities have given permission to the Baltimore Safety Council to organize a safety council or patrols in all the schools of that city in an effort to lessen traffic accidents to school children, according to a statement just made public by the Children's Bureau of the Department of Labor covering various child welfare activities.

During 1927 traffic accidents in Baltimore caused 169 deaths; of these, fifty-six were of child pedestrians. In school neighborhoods where junior safety councils or patrols were functioning the number of accidents was very small in comparison with other sections. In the hope of reducing the hazards to school children, the Baltimore Safety Council will organize a safety council or patrol in every school of the city. It also sponsors every May two junior safety council conventions, one for white and one for colored children, the object of which is to stimulate interest in the public playgrounds and direct their use during the summer vacation. They are attended by 3,500 children.

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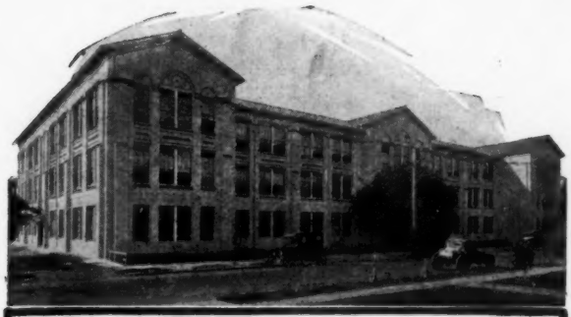

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ESTIMATES PROMPTLY SUBMITTED ON SPECIAL STYLES

In the Educational Field

PROF. ARTHUR B. MAYS, associate professor of industrial education, University of Illinois, for the past six years, was recently appointed professor of industrial education at that university.

M. C. DARNALL, principal of the Wabash High School, Wabash, Ind., for the past nine years, recently resigned to become principal of the Crawfordsville High School, Crawfordsville, Ind.

JAMES E. ARMSTRONG, former principal of the Englewood High School, Chicago, who was retired two years ago as being too old for the position, was reappointed recently.

ROBERT ARTHUR was recently named principal of the Chardon High School, Delaware, Ohio, succeeding LEE HUMPHREY, resigned.

DR. H. L. DONOVAN, professor of elementary education, George Peabody College, Nashville, Tenn., was recently appointed president of the Eastern Kentucky State Teachers College, Richmond, succeeding the late DR. T. J. COATES.

L. E. MICHAEL, principal of the Clinton Senior High School, Clinton, Ind., for the past four years, recently resigned to become principal of the Plymouth High School, Plymouth, Ind.

DR. F. C. LANDSITTEL of Ohio State University was recently appointed chairman of the Committee on Secondary Schools of the North Central Association.

P. L. HAMLETT recently resigned as principal of the Newport High School, Cincinnati.

H. R. KREITEZER was recently appointed a member of the Oregon State Board for Vocational Education, succeeding MILTON A. MILLER, resigned.

PROF. BAYARD W. SALER, assistant principal of the Derry Township High School, Latrobe, Pa., was recently named principal of the Ligonier High School, Ligonier, Pa., succeeding DEAN S. DUNCAN, resigned.

EUGENE ELLIS was recently named to succeed WILLARD H. WEYMOUTH, who has resigned as principal of the Woodstock Academy, Putnam, Conn.

ELTON HAKES, principal of the Holland Patent High School, Holland Patent, N. Y., was recently named principal of the Massena Junior and Senior High Schools, Massena, N. Y., succeeding P. H. MARTIN.

ANNA LETTA SIMMONS, dean of women and professor of education, Carthage College, died recently.

J. DONALD LEAKE was recently appointed principal of the Littleton High School, Littleton, Colo., succeeding C. FLOYD HALL, resigned.

CLAUDE B. PENDLETON was recently named to succeed PETER C. HOLM as principal of the Bryant school, Denver.

W. H. PERRY, superintendent of schools, Leominster, Mass., was recently elected president of the Massachusetts Association of School Superintendents. S. MONROE GRAVES, superintendent of schools, Wellesley, Mass., was elected vice president.

RUDOLPH M. FJELSTAD, superintendent of schools, Cottonwood, Minn., recently resigned.

EDISON W. FOWLER, principal of the Nampa High School, Nampa, Idaho, was recently appointed superintendent of schools of that place.

HAROLD W. FILDEY, superintendent of schools, Riverdale, Mich., recently resigned from that position to accept a position on the faculty of the Wasatch Academy, Mt. Pleasant, Utah.

BERT DAVID, formerly principal of the Lehighton High School, Lehighton, Pa., was recently appointed superintendent of schools, Lehighton, succeeding CLARENCE E. TOOLE, who resigned to become superintendent of schools, Pottsville, Pa.

SAM R. HILL, principal of the Grant Junior High School, Denver, was recently appointed principal of the new William H. Smiley Junior High School, Denver, the appointment taking effect in the fall.

C. C. PIERCE, superintendent of schools, Rocky River, Ohio, was recently appointed superintendent of schools, Painesville, Ohio.

JOSEPHINE MCMULLEN was recently appointed state supervisor of vocational homemaking for the state of Iowa.

R. D. CONRAD, superintendent of schools, Galion, Ohio, was recently appointed superintendent of schools, Delaware, Ohio.

A. C. CLEVENGER, inspector of high schools for the University of Michigan, was recently appointed to that position at the University of Illinois, succeeding PROF. H. A. HOLLISTER, resigned.

CLYDE O. RUGGLES, dean of the College of Commerce and Administration, Ohio State University, recently tendered his resignation after fourteen years of service to become professor of public utilities, Harvard University.

C. E. COOPER, superintendent of schools, Britt, Iowa, for the past five years, recently tendered his resignation.

H. A. MCDANIEL recently resigned as principal of the Somerville school, Somerville, Ohio.

PETER C. HOLM, principal of the Bryant school, Denver, was recently appointed to succeed CHARLES D. HALL as principal of the Garden Place school, Denver.

EDWARD A. SCHIMKE, principal of the Pentwater High School, Pentwater, Mich., was recently appointed superintendent of schools of that place.

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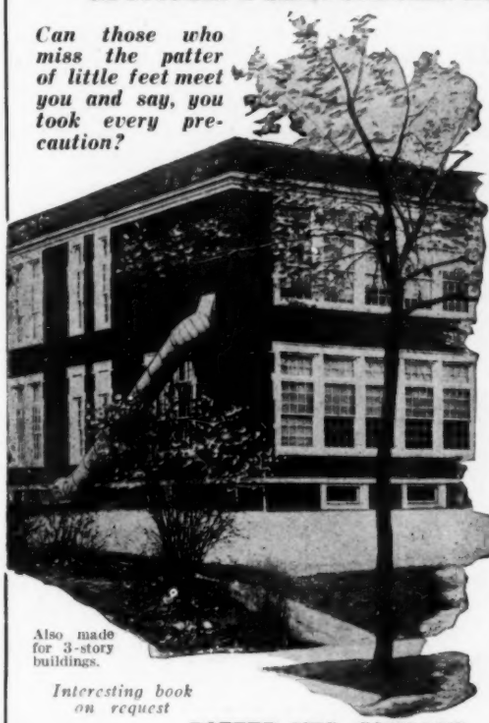

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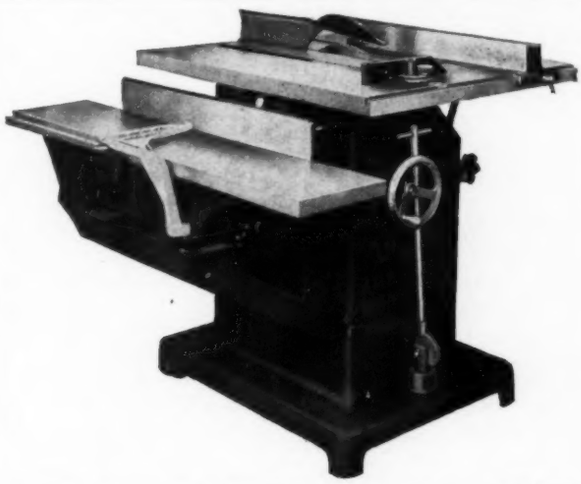

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In the Educational Field

DR. G. B. SMITH, acting dean of the law school of Columbia University, has recently been appointed dean to succeed PROF. HUGER W. JERVEY, who resigned due to ill health.

CONRAD F. HAMILTON, athletic coach at the Casey High School, Casey, Ill., was recently appointed principal of the St. Joseph High School, St. Joseph, Ill.

J. R. MCANELLY, superintendent of schools, Spencer, Iowa, was recently appointed associate professor of education, Southern States Teachers College, Springfield, S. D.

CHARLES D. HALL, principal of the Garden Place school, Denver, was recently appointed principal of the Grant Junior High School, Denver, succeeding SAM R. HILL.

FRANK ATTINGER, principal of the Ellwood City High School, Ellwood City, Pa., recently resigned to become supervising principal of the Seline Groves schools, Seline Groves, Pa.

C. W. STEELE, superintendent of schools, Fowler, Ind., for the past seventeen years, recently resigned from that position.

PROF. W. KNOX MCCHAREN, principal of the Winona High School, Winona, Miss., recently resigned to become superintendent of schools, McCool, Miss.

DR. J. O. ENGLEMAN, associate professor of school administration, Ohio State University, was recently elected president of the Kent State Normal College, Kent, Ohio.

RAYMOND GREG, principal of the Clarksville High School, Clarksville, Ark., recently resigned.

PRISCILLA H. FOWLE was recently appointed dean of women, Denison University, and will assume her new duties in September.

T. D. LAMB was recently appointed principal of the Clay County High School, Clay County, W. Va., succeeding WILFORD MCCUTCHEON, who recently resigned to become superintendent of schools, Marshall County, W. Va.

HELEN CHENEY was recently appointed principal of the Defiance school, Defiance, Iowa, succeeding MRS. LOTTIE WESSELL, resigned.

JOHN THOMAS was recently elected principal of the San Ramon Valley Union High School, Danville, Ill., succeeding PAUL BICKEL, resigned.

LESTER E. SEITZ, formerly superintendent of schools, Commercial Point, Ohio, was recently elected superintendent of schools, Pickaway township, Ohio, succeeding A. F. CAMERON.

JAMES REARDAN, principal of the East Bridgewater High School, East Bridgewater, Mass., was recently elected superintendent of schools, East Bridgewater, succeeding EDGAR H. GROUT, resigned.

DR. THOMAS WARRINGTON GOSLING, superintendent of schools, Madison, Wis., was recently elected superintendent of schools, Akron, Ohio.

WALTER R. CLEMINSON was recently appointed principal of the St. Johns High School, St. Johns., Mich., succeeding HAROLD C. HUNT.

DAVID W. HOPKINS, vice principal of the Central High School, and dean of St. Joseph Junior College, St. Joseph, Mo., was recently elected superintendent of schools, St. Joseph, succeeding CHARLES A. GREENE.

EUGENE H. HERRINGTON was recently appointed to succeed the late E. G. ARNOLD, as principal of the Alcott school, Denver.

DR. JOHN M. VANDER MEULEN, president of the Louisville Presbyterian Theological Seminary, Louisville, Ky., recently resigned, the resignation to take effect within a year.

M. D. ANDERSON, principal of the Early consolidated schools, Early, Iowa, recently declined reappointment and will study at Columbia University.

C. C. STADTMAN, principal of the Central school, Granite City, Ill., was recently elected principal of the Wood River Community High School, Granite City.

SAMUEL C. MCKINLEY was recently elected superintendent of schools, Ashland County, Ohio, to succeed O. F. MAFFET, resigned.

A. N. WHEELERECK, superintendent of schools, Riverside, Calif., recently resigned.

DR. WILLIAM T. BAWDEN, associate superintendent of schools, Tulsa, Okla., for the past five years, recently tendered his resignation.

J. E. JACKSON was recently elected superintendent of schools, Jefferson, Texas, succeeding H. H. CHAMBERS, who recently resigned to become dean of Weatherford College, Weatherford, Texas.

PROF. J. M. MARTIN, Urbana High School, Urbana, Ohio, was recently appointed superintendent of schools, Weiser, Idaho.

RAYMOND C. FORD, principal of the Troy High School, Troy, Ill., was recently elected principal of the St. Charles High School, St. Charles, Mo.

REV. PAUL GIERINGER was recently named principal of the new Catholic High School, Lancaster, Pa.

G. A. SPEISS, principal of the Wheatland High School, Wheatland, Calif., was recently named to succeed PROF. E. C. LEE, as principal of the Livermore High School, Livermore, Calif.

CHARLES PRIEST was recently elected principal of the Carson City High School, Carson City, Nev.

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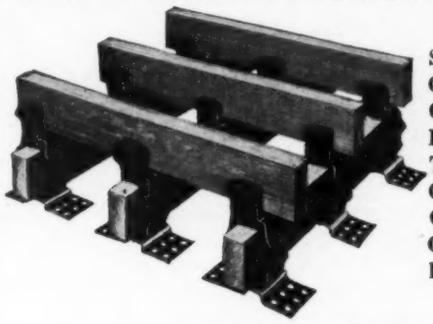
Modern schools are now taking every precaution to rid class rooms of unnecessary distracting noises. Send for interesting engineering data.



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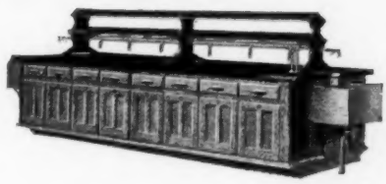

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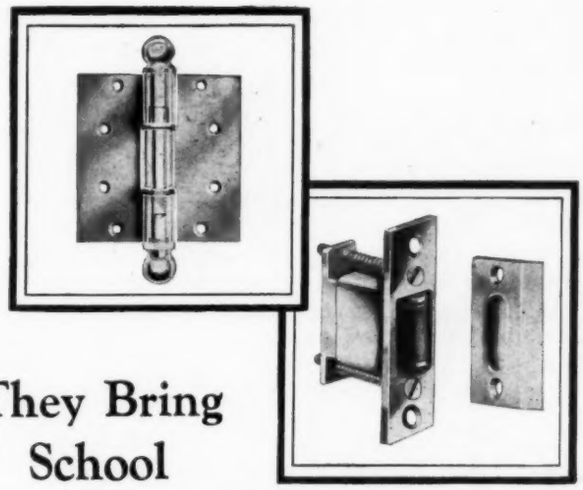

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In the Educational Field

DR. H. B. RITCHIE, dean of Georgia State Teachers College, Athens, Ga., was recently elected president of the Georgia Educational Association.

DR. W. W. CHARTERS, professor of education, University of Chicago, recently accepted appointment as director of the Bureau of Educational Research, Ohio State University, succeeding DR. B. R. BUCKINGHAM, resigned.

H. M. PARTINGTON, principal of the Nutley Junior High School, Nutley, N. J., for the past five years, was recently appointed principal of the Lincoln school, Westfield, N. J., succeeding STANLEY T. HINMAN, who will become principal of the new Columbus school, Westfield.

PAUL PETER was recently named principal of the Howard City High School, Howard City, Mich., succeeding EARL E. PETERSON, resigned.

JOHN F. HUMMER, principal of the Central High School, Binghamton, N. Y., was recently appointed assistant superintendent of schools, Syracuse, N. Y.

PAUL A. PALMER was recently appointed principal of the Union High School, Benwood, W. Va., succeeding CHRIS SANDERS.

R. T. STRANGE, principal of the Oakland Heights High School, Sheridan, Miss., for the past eleven years, recently tendered his resignation.

J. HENRY MCINTIRE, principal of the Durfee High School, Fall River, Mass., for the past ten years, died recently.

PROF. A. T. JACKSON, principal of the Roscoe High School, Roscoe, Tenn., died recently.

PROF. BAYARD MATTHEW was recently appointed principal of the Clark Mills High School, Clark Mills, N. Y., succeeding HAROLD CORZETT, who resigned to become principal of the Fayetteville High School, Fayetteville, N. Y.

J. L. SLOANE, principal of the Morgan Hill school, Morgan Hill, Calif., was recently appointed superintendent of schools, Sanger, Calif.

E. V. CHAPMAN was recently appointed principal of the new Minnie Holman school, Birmingham, Ala., which will open in September.

J. R. FISHER was recently appointed principal of the Los Gatos school, Los Gatos, Calif., succeeding MRS. CECILE B. HALL, resigned.

DR. ROBERT STEELE, principal of the Clarion State Normal School, Monessen, Pa., was recently elected principal of the Southwestern State Normal School, California, Pa., succeeding DR. JOHN ENTZ, resigned.

S. W. RABB, superintendent of schools, Laurinburg, N. C., for the past fourteen years, recently tendered his resignation to become superintendent of schools, Grier, S. C.

J. N. CURTIS was recently appointed principal of the North Kansas City High School, North Kansas City, Mo., succeeding J. R. CLARK who was recently elected superintendent of schools at that place.

PROF. MAX R. BRUNSTETTER, principal of the Millville High School, Millville, N. J., recently tendered his resignation.

JOHN J. F. RUDDY was recently elected principal of the Pine Manual Training High School, Ansonia, Conn.

CHAUNCEY W. WALDRON, principal of the Rye Country Day School, Rye, N. Y., for the past eight years, recently resigned.

HENRY S. MOSELEY was recently named principal of the Glastonbury High School, Glastonbury, Conn., succeeding ROBERT SWAIN.

PROF. J. T. EMBRY, formerly athletic director of the Carlisle High School, Carlisle, Ky., has been appointed superintendent of schools, Stanford, Ky.

B. M. RUTTER, formerly superintendent of schools, Nevada, Ohio, recently resigned to become superintendent of schools, Holgate, Ohio.

RUTH BECKWITH was recently appointed to succeed JAMES E. BIGELOW as principal of the Center elementary school, East Hampton, Conn.

F. A. HENDERSON, principal of the Orange Union High School, Orange, Calif., was recently appointed superintendent of schools, Burbank, Calif.

H. B. GIBBS was recently appointed superintendent of schools, Portland, Mich.

L. A. BUDAHN, professor of education at the Kent State Normal College, Kent, Ohio, was recently appointed superintendent of schools, Fostoria, Ohio, succeeding F. H. WARREN.

IDA MCDERMOTT, principal of the Fostoria High School, Fostoria, Ohio, for the past thirty-three years, recently resigned.

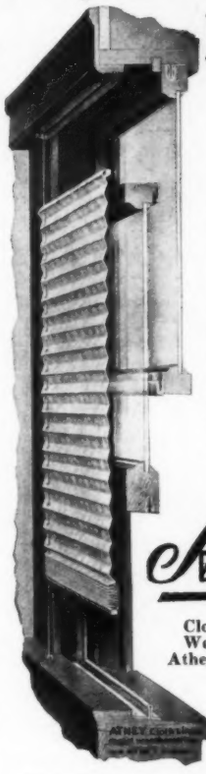
A. H. PRICE was recently appointed principal of the new Woodrow Wilson school, Birmingham, Ala., which will open in September.

PROF. ANSON FLEMING was recently elected principal of the Munford High School, Brighton, Tenn., succeeding PROF. C. T. WILLIS, resigned.

LEON C. HIGH, principal of the Hazelton High School, Hazelton, Pa., for the past two years, recently resigned to become principal of the West Englewood High School, West Englewood, N. J.

JOHN B. THOMAS was recently elected principal of the Eddystone school, Eddystone, Pa., succeeding LYDIA GRISWELL, resigned.

Any School Window Made Perfect



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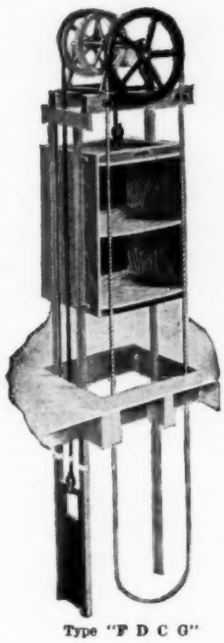

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In the Educational Field

G. DERWOOD BAKER, principal of the Langley Junior High School, Washington, D. C., was recently appointed principal of the new South Pasadena Junior High School, South Pasadena, Calif.

WILLIAM E. JONES was recently appointed principal of the Garden City Junior High School, Garden City, Kan.

ROWE CHAPMAN was recently appointed principal of the Huntsville High School, Huntsville, Ala., succeeding W. G. HAMM who was elected superintendent of schools, Huntsville.

WALTER LABONTE was recently appointed principal of the Hobson High School, Hobson, Mont., succeeding B. F. TANNER, resigned.

D. C. SIMKINS, principal of the Dennison High School, Dennison, Ohio, recently tendered his resignation.

A. D. SHONFELD, principal of the Lafayette High School, Lafayette, Ind., for the past two years, was recently appointed superintendent of schools, Lafayette.

PROF. A. Y. MCBRIDE was recently elected principal of the Holcomb Consolidated School, Holcomb, Miss.

C. E. PALMER, superintendent of schools, Carey, Ohio, recently resigned to become superintendent of schools, East Palestine, Ohio.

G. H. BROWN, principal of the Tazewell High School, Bluefield, W. Va., recently tendered his resignation.

O. W. BRACKNEY, superintendent of schools, Lacarne, Ohio, for the past two years, recently resigned to become superintendent of schools, Center Township, Mercer County, Ohio.

MRS. ANNA BLAINE was recently appointed principal of Saugatuck High School, Saugatuck, Mich.

WILLIAM MORRISON ADAMS, principal of the Navy Hill school, Richmond, Va., died recently.

MRS. MARGARET A. LASSEN, superintendent, Oaklawn School for Girls, Providence, R. I., recently resigned.

PAUL J. ANDREWS, superintendent of schools, Jefferson township, New Paris, Ohio, recently resigned and has been succeeded by HERBERT EICHHORN.

PAUL C. NORVELL, for the past eight years principal of the Cairo High School, Cairo, Ill., recently tendered his resignation.

S. R. WILLITTS, principal of the Hamburg school, Hamburg, N. J., was recently elected principal of the Pompton Lakes school, Pompton Lakes, N. J., succeeding THOMAS J. HUTTON.

WILLIAM HARDING was recently appointed principal of the Holdenville Junior and Senior High Schools, Holdenville, Okla.

C. J. HAYDEN was recently appointed principal of the Sandusky High School, Sandusky, Mich.

LEE A. DOLLINGER, principal of the Sidney High School, Sidney, Ohio, for the past twenty-four years, recently resigned.

DR. JAMES HENRY MORGAN, president of Dickinson College, Carlisle, Pa., since 1914, recently tendered his resignation.

PROF. E. C. HICKS, principal of the Cedar Hill High School, Cedar Hill, Tenn., was recently elected principal of the Orlinda High School, Orlinda, Tenn.

FRANK A. BAUMAN was recently elected principal of the Orosi Union High School, Orosi, Tulare County, Calif.

WILLIAM COOLIDGE LANE, librarian of the Harvard College Library for the past thirty years, recently resigned.

W. A. ARTER, superintendent of schools, Clairesville, Ohio, recently tendered his resignation.

PROF. C. C. CROSSWHITE, principal of the Ernst Simonsen Junior High School, Jefferson City, Mo., was recently elected superintendent of schools, Cameron, Mo.

VIRGIL L. FLINN, principal of the Ripley High School, Ripley, W. Va., recently resigned.

W. A. NONNAMAKER, superintendent of schools, Vanlue, Ohio, was recently appointed superintendent of schools, Nevada, Ohio.

CHARLES B. HURD, formerly superintendent of schools, Roscommon, Mich., was recently elected superintendent of schools, Gaylord, Mich.

H. W. HARSHFIELD, superintendent of schools, Independence, Ohio, recently resigned from that position.

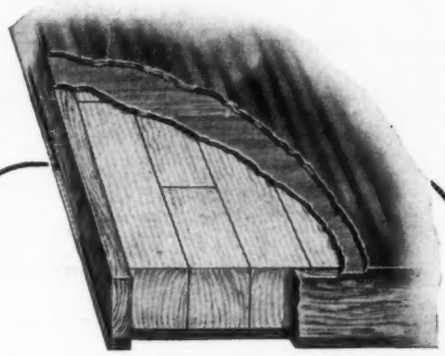
GERALD D. LADLEY was recently appointed principal of the Columbia High School, Atalia, Wash.

T. A. CLOWER, superintendent of schools, Hawkinsville, Ga., for the past three years, recently resigned.

R. W. OLTMAN, superintendent of schools, Cosmopolis, Wash., was recently appointed principal of the Hoquiam Senior and Junior High Schools, Hoquiam, Wash., succeeding FORREST G. MURDOCK, who recently resigned to become principal of the Everett High School, Everett, Wash.

WILLIS THOMSON was recently elected principal of the Isaac E. Young Junior High School, New Rochelle, N. Y.

FRANCIS L. BACON, principal of the J. Sterling Morton High School, Cicero, Ill., recently resigned to become principal of the Evanston Township High School, Evanston, Ill.



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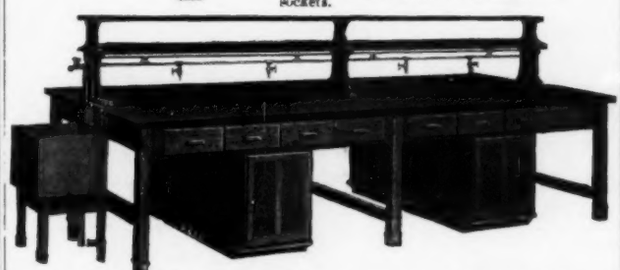

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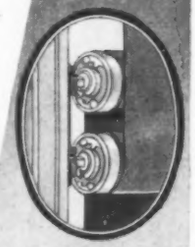
Help the Backward Child with *Tempered* Light

OFTEN the so-called backward child is just a normal pupil working under the handicap of poor light and bad ventilation.

No other type of schoolroom equipment can contribute more to the health and efficiency of pupils than Hartshorn Shade Cloths mounted on dependable, smoothly-running Hartshorn Shade Rollers. They reduce the regulation of proper air and tempered light to a simple touch of the hand upon the shade cord.

For the sake of classroom health — specify Hartshorn Shade Products for your next shade requirements.

STEWART HARTSHORN CO.
250 Fifth Avenue, New York City



This shows Hartshorn Double Bracket No. 87, designed to permit proper regulation of light and air. With Hartshorn Shade Cloths, these rollers are ideally suited for classroom use.

Hartshorn
Established 1860
SHADE ROLLERS AND WINDOW SHADE CLOTH

A SHADE IS ONLY AS GOOD AS ITS ROLLER

The August Issue

JOHN G. ROSSMAN, assistant superintendent of schools, Gary, Ind., will discuss the possibilities for an enriched curriculum and greater economy following consolidation in rural schools.

PROF. M. V. O'SHEA will present a particularly timely discussion on the art of rating teachers according to the present scoring methods.

In addition to these two outstanding articles, other papers will be offered giving the results of recent research concerning construction, standard tests, tuition, color, drama, safety, and methods of enrollment, as well as discussions dealing with other problems of the school administrator.

The NATION'S SCHOOLS
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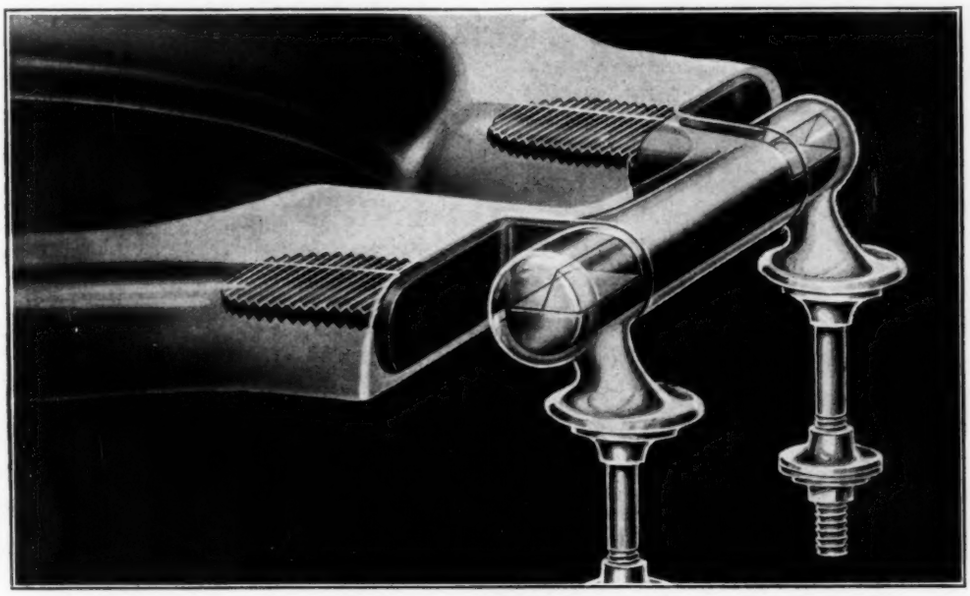
JOHN L. HORGAN, *Managing Director*

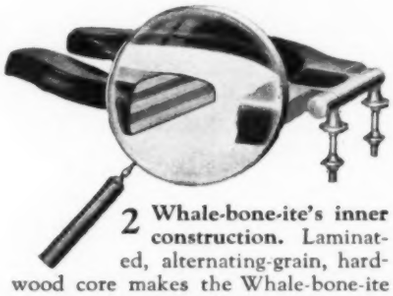
At the Same Price..

you can have Whale-Bone-ite



Why miss Whale-bone-ite's important features?

1 The new Whale-bone-ite Hinge. Makes both seat and hinge one unbreakable solidified unit, impervious to moisture, absolutely non-corrosive. No other closet seat offers you this hinge.



2 Whale-bone-ite's inner construction. Laminated, alternating-grain, hardwood core makes the Whale-bone-ite Seat proof against splitting, warping, or cracking. Every Whale-bone-ite Seat is guaranteed for life of the building.

A WHALE-BONE-ITE SEAT costs no more than the cheapest composition closet seat. This is a fact every architect and building operator should know. Don't think a substitute is just as good. It isn't. Only-Whale-bone-ite is "like Whale-bone-ite."

Architects have for years recognized Whale-bone-ite as the standard seat for all fine buildings. To-day, probably 90% of all the fine commercial buildings, hotels, schools, and hospitals are equipped with Whale-bone-ite. No other toilet seat has proved in actual use to have this seat's amazing durability.

The Whale-bone-ite Seat is one piece . . . molded when soft into shape around a core of alternating-grain layers of hardwood. Thus it has no cracks or seams to harbor germs. No thin veneered surface to wear through. Easy to clean, non-inflammable, its beautiful surface will last a lifetime.

The new Whale-bone-ite hinge is molded in one operation as an integral part of the seat. Reinforced by a metal, die-cast, one-piece insert, it is covered with highly-polished Whale-bone-ite having the same strength and finish as the surface of the seat. Any model of Whale-bone-ite Seat may be obtained with this new hinge.

When you choose the Whale-bone-ite Seat, you obtain service: long, dependable wear. Don't accept any less than Whale bone-ite offers you.

WHALE-BONE-ITE TOILET SEAT

THE BRUNSWICK-BALKE-COLLENDER COMPANY · CHICAGO

Albany	Boston	Chicago	Dallas	Detroit	Kansas City	Minneapolis	Philadelphia	San Francisco	Tampa	Ottawa
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For a free cross-section of a Whale-bone-ite Seat, address Dept. 253, Seat Division, The Brunswick-Balke-Collender Co., 623 South Wabash Avenue, Chicago.

THE THINGS YOU RECEIVE

The Logical Service of The NATION'S SCHOOLS

READER, publisher and advertiser. Here is the triad that makes tangible the service of such publications as The NATION'S SCHOOLS. From the reader comes a demand for authoritative information on school matters. From the publisher comes a conscientious endeavor to present clearly the important things vital to the field. And from the advertiser come messages of value to the administrator who must depend upon industry for the materials and facilities of his profession. For example, here are a few paragraphs quoted from advertisements in the current issue of The NATION'S SCHOOLS that present enlightening facts.

"There is a fallacy in the buying of liquid soap which should be exploded. Buying cheap soap is not economy. Nine times out of ten, the price is lowered by merely adding water."

* * *

"Just two months in which to go over the schools from top to bottom and give them a thorough house cleaning for next fall. To make sure your floors will get the proper attention you need more than the muscle of janitors. In this age, machines alone can produce the standard of cleanliness a school should have."

* * *

"For climate, for progressive people—and for its schools, California is famous. This state, with an enterprising young spirit that quickly turned a frontier into a paradise, early saw the need of well-equipped school plants. Adopting the idea of central schools to serve large territories, transporting the pupils by busses, it has raised the level of equipment even of rural schools to a surprisingly high point."

* * *

"No school official can afford to bargain with danger. Unless proper safeguards are provided, ash removal offers a hazard that can readily result in injury to pupil, to pedestrian and to the man or men handling the ashes."

* * *

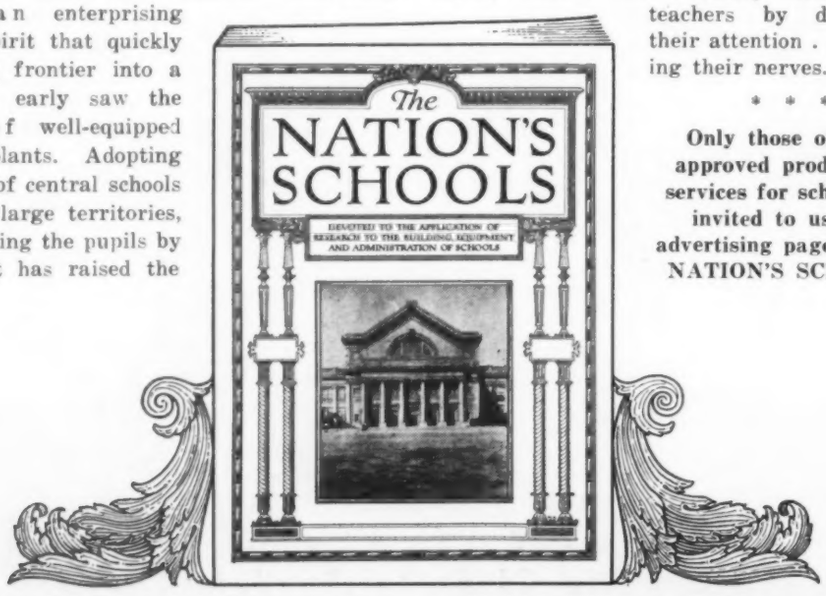
"Often the so-called backward child is just a normal pupil working under the handicap of poor light and bad ventilation."

* * *

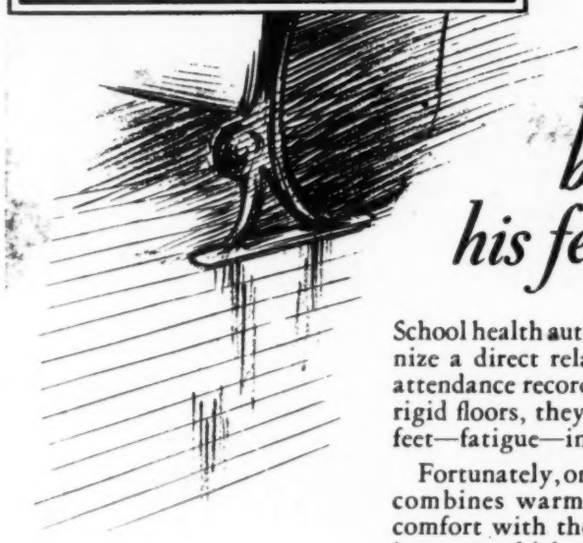
"Noises and echoes in school auditoriums ruin many assemblies and musical programs. Annoying sounds also handicap students and teachers by distracting their attention . . . straining their nerves."

* * *

Only those offering approved products or services for schools are invited to use the advertising pages of The NATION'S SCHOOLS.



He never misses a day of school



because the floor beneath his feet is warm, dry, resilient, clean

School health authorities now recognize a direct relationship between attendance records and floors. Cold, rigid floors, they say, mean chilled feet—fatigue—increased absences.

Fortunately, one flooring material combines warm, dry, cushioning comfort with the qualities of lasting wear which school use demands—Northern Hard Maple.

This resilient flooring material is remarkably tough-fibred and tight-grained. It will not sliver or splinter. Scuffing, youthful feet and the moving of equipment simply make it smoother with time. Northern Hard Maple actually outwears stone!

Maple, moreover, because of its permanent smoothness, is exceptionally easy to keep clean. It offers no open lodging places for dust and germ-laden dirt to collect. And it permits quick, simple, permanent anchorage for seats.

Hundreds of schoolboards have been guided by these facts in selecting flooring. They have chosen Maple for schoolrooms, corridors, gymnasiums, assembly halls. Consult your architect about Northern Hard Maple.

Maple Floors in Color

With fadeless penetrating stains recently developed, hard Maple Floors are now made to take a variety of beautiful, lasting color finishes—opening up entirely new possibilities for attractive decorative effects. Standard finishes made only by The Marietta Paint & Color Co., Marietta, Ohio, as follows

Early American, Spanish Brown, Autumn Brown, Silver Gray, Dove Gray, Royal Blue, Pastel Green, Orchid, Seal Black, Natural

Write for free booklet, "The New Color Enchantment in Hard Maple Floors"

Let our Service and Research Department assist you with your flooring problems. Write us.

MAPLE FLOORING MANUFACTURERS ASSN.
1797 McCormick Building
Chicago

Guaranteed Floorings

The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**

Floor *with* Maple

HOW THE WAUPACA SCHOOLS SOLVED THE PROBLEM OF FALLING PLASTER ECONOMICALLY

HERE'S NEW ECONOMY . . . NEW SAFETY . . . NEW BEAUTY

FALLING plaster in the Waupaca, Wis., School endangered the children's safety, and destroyed the appearance of a considerable portion of the interior.

The installation of Milcor Metal Ceilings replaced the falling plaster economically. It also gave the school a new beauty, and absolutely assured the school board, as well as parents, that the children would be entirely safe thereafter.

Milcor Metal Ceilings are pleasing in appearance, sanitary, permanent, firesafe, and economical to buy and install. Are your school ceilings in good condition?

Send now for the Milcor Metal Wall and Ceiling Catalogue—You'll be surprised at the beautiful decorative designs and information it contains.

MILCOR

MILWAUKEE CORRUGATING CO., *Milwaukee, Wis.—Chicago, Ill.; Kansas City, Mo.; La Crosse, Wis.*

for floors of all kinds

FINNELL

for business
for homes

"I feel for the first time since I have been connected with this institution, that we have equipment that produces efficient and satisfactory results. Our main building can now be said to be clean and the cleaning is done at less expense than at any previous time."

—*Washington State Normal School*
Bellingham, Washington.

Now—

while the classrooms are empty Put the FLOORS in condition

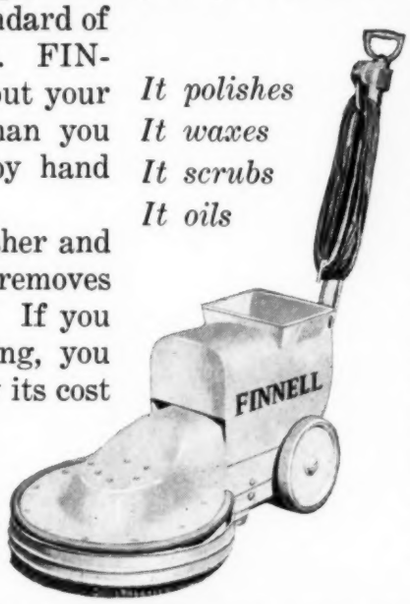
JUST two months in which to go over the schools from top to bottom and give them a thorough house cleaning for next fall.

To *make* sure your floors will get the proper attention you need more than the muscle of janitors. In this age, machines alone can produce the standard of cleanliness a school should have. FINNELL Scrubber-Polishers will put your floors to right more quickly than you have ever been able to do it by hand methods, and do a better job.

While primarily a waxer-polisher and a scrubber, the FINNELL also removes varnish and does light sanding. If you have floors in need of refinishing, you may find the FINNELL will pay its cost in these first months of service, and then give you an extra dividend by making regular cleaning easier and more thorough throughout the school year.

The time is short. On your request we shall be glad to wire our nearest representative to call upon you, make a survey of floor conditions in your building, and advise you as to equipment needed and estimate of cost. Only prompt action will bring you the necessary equipment in time to use the summer months most profitably. Address FINNELL SYSTEM, INC., 367 East St., Elkhart, Ind. Also Standard Bank Bldg., Ottawa, Ontario, Canada. Factories, Elkhart, Ind., Hannibal, Mo., and Ottawa, Ont., Canada. District offices in principal cities.

It polishes
It waxes
It scrubs
It oils



FINNELL

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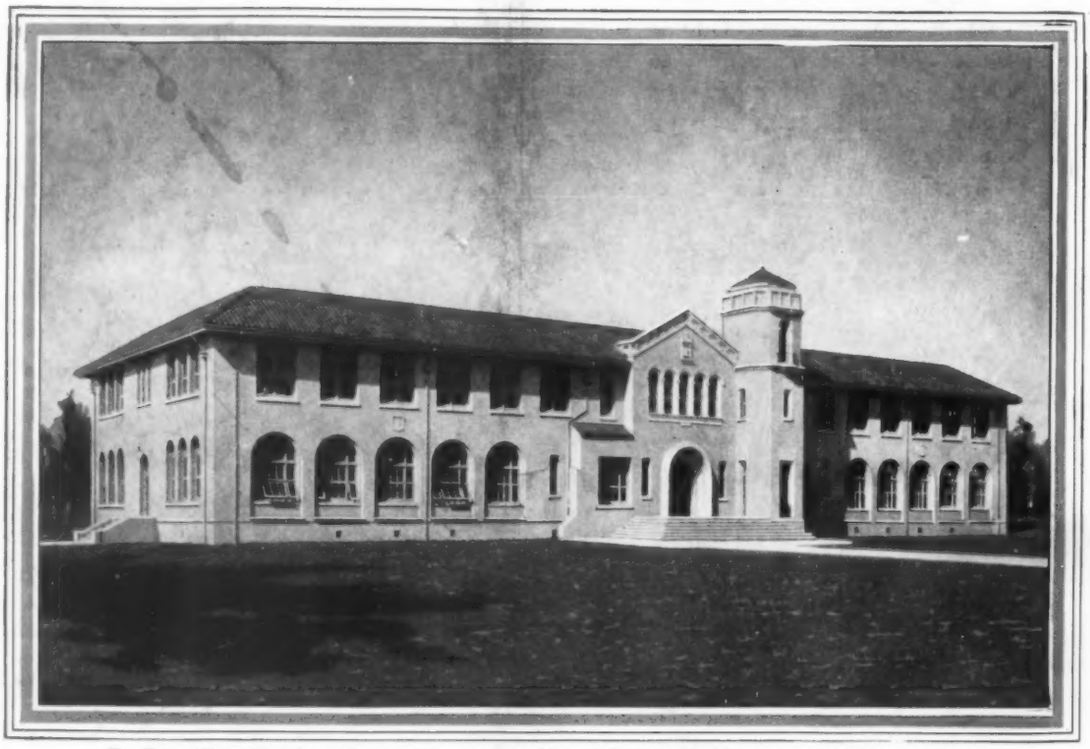
150 Pounds Pressure

CRANE VALVES

2500 Pounds Pressure



The Central Union High School, located eight miles west of Fresno, California. In the heart of the raisin grape district, its pupils are brought from miles around by busses. Architects, Coates & Traver, Fresno. General Contractors, Brown & Stafford, Madera. Plumbing & Heating Contractors, B. A. Newman Co., Fresno. The building is Crane-equipped.

In progressive California's schools

For climate, for progressive people — and for its schools, California is famous.

This state, with an enterprising young spirit that quickly turned a frontier into a paradise, early saw the need of well-equipped school plants. Adopting the idea of central schools to serve large territories, transporting the pupils by busses, it has raised the level of equipment even of rural schools to a surprisingly high point.

It is a matter of note that so many of California's school buildings, both central rural and city, have been equipped with Crane plumbing and heating materials to guard health and give comfort.

CRANE

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